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MARCH. 1854. NO. 1.

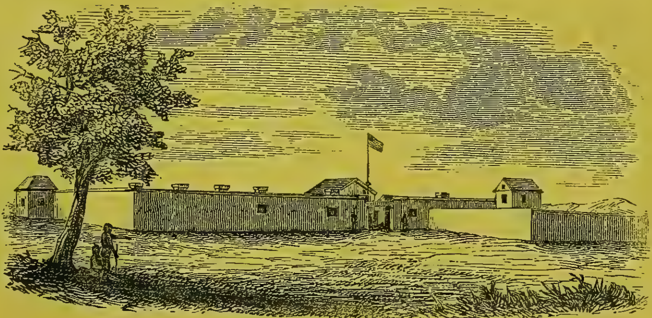
ILLUSTRATED
HISTORICAL SKETCHES
OF CALIFORNIA,

WITH A

MINUTE HISTORY OF SACRAMENTO VALLEY,

TOGETHER WITH AN APPENDIX OF GENERAL NEWS.

CAL.



By DR. JOHN F. MORSE, assisted by SAMUEL COLVILLE, Publisher.

SACRAMENTO:
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1854.

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ILLUSTRATED
HISTORICAL SKETCHES
OF CALIFORNIA,

INCLUDING

GENERAL REFERENCES TO ITS DISCOVERY, EARLY
MISSIONS, REVOLUTIONS, AND SETTLEMENT
BY THE UNITED STATES;

TOGETHER WITH A MORE AMPLE

HISTORY OF SACRAMENTO VALLEY AND CITY,

AND

BIOGRAPHICAL REFERENCES TO PROMINENT INDIVIDUALS.

BY

DR. JOHN F. MORSE,

ASSISTED BY

MR. SAMUEL COLVILLE,

PUBLISHER.

SACRAMENTO:
PRINTED FOR THE PUBLISHER AT THE DEMOCRATIC STATE JOURNAL OFFICE.
1854.

CALIFORNIA STATE LIBRARY
CALIFORNIA SECTION

1

TO THE CALIFORNIA ADVENTURERS OF

FORTY-NINE,

THE FOLLOWING HISTORICAL SKETCHES ARE RESPECTFULLY DEDICATED.

To you, Gentlemen, we feel that nothing can fail in interest which relates to the memorable YEAR that identified your names with this country. The electric changes to which that period gave rise, the restless spirit of adventure that swept through every community, the shifting scenes of enterprise and the deathless attachments and friendship that were formed, make it a matter of importance, as well as of thrilling interest, to rescue the current history of those times from fading memory, and put it into some enduring and acceptable form for future contemplation. However imperfect our record may prove, yet a portion of it, we believe and hope, will be recognized as exact truth, and cherished as an agreeable medium of recollection.

And as far as it may respond to the approbation of these, our old associates, so far do we desire it to be ascribed to the

Pioneers of '49.

JOHN F. MORSE,
SAMUEL COLVILLE.

Entered according to Act of Congress, in the year 1854, by Samuel Colville, in the Clerk's Office, of the District Court, of the Northern District of the State of California.

INTRODUCTION.

In our efforts to collect the necessary data for writing a history of Sacramento Valley and City, we have obtained so much interesting information respecting the early Missions of California, that we have determined upon making them the subject of a few introductory chapters to our work. To the moral and political philosopher nothing could afford more agreeable contemplation than cursory glances at the establishment of these Missions. They present such a significant contrast between religious and secular colonizations, such a demonstration of the anti-progressive character of the Papal Church under Spanish rule, that they are both interesting and instructive.

The object of these Missions was, doubtless, the propagation of Papal doctrines and extension of the Spanish Crown; and, in the attainment of this end, there could have been but little difficulty, whilst there was everything to encourage enterprise and conciliate attachments to the country. Everything that mildness and beauty of climate could offer; every attraction that could spring from topographical relations; from rich and incomparable valleys of farming land; from luxurious verdure and gorgeous flowers; from exhaustless streams of soft and delicious water, there was an infinite variety of interests presented to the exploring gaze of those who commenced the establishment of these Missions. All that the most favorable combinations of natural facilities could offer as an inducement to settle, open and develope the country, was found by the early Missionaries of California. They had to meet none, or but very few, of those appalling difficulties which contended against the colonists of "Jamestown" and "Plymouth." They had to encounter fewer obstacles with greater patronage, less resistance with greater means of defence. In the Aborigines of the country they met tribes of Indians who occupied the lowest scale of savage organizations, and who, with a leading characteristic of physical weakness, blended a docility of mind easily influenced by simple expressions of kindness, and the glitter of gross and almost valueless ornaments. Under such circumstances did the Jesuit and Franciscan Missionaries commence their operations in California. These Missions were within the four military divisions of the State, which were called Presidences or Presidios.

In our descriptions of them, and in our view of the causes that led to their establishment, we have availed ourselves of extensive assistance from Alexander Forbes' History of California, from Colton, and from Messrs. Ten Brook and Ford—to all of which sources of information we return our grateful acknowledgements.

MISSIONS OF CALIFORNIA.

CHAPTER I.

THE MISSION OF SAN DIEGO—PRESIDIO OF SAN DIEGO.

As early as the year 1769, the Rev. Junipero Serra founded the first Mission. This Mission was situated near the Town of San Diego, and its success paved the way for the many others that were afterwards established throughout the Territory. It was at this interesting Mission where the untutored and almost uncivilized Indians of California were first taught the worship of God through the attractive and expressive symbols of the Established Church. It was here where the first wild horses of the country were tamed, and the wild cattle that grazed upon the hills were first driven into the temporary imprisonment of a Spanish Corall. Where the first sheep was sheared, the first vine or fruit tree was planted, and where cultivated flowers, for the first time, imparted their fragrance to the atmosphere of a new and beautiful country.

MISSION OF SAN CARMEL—PRESIDIO OF MONTEREY.

In 1770 this mission was founded a few miles from the Town of Monterey. The lands surrounding it were fertilized by an exhaustless stream of pure water, and considerable attention was paid to the cultivation of vegetables. It was on the land of this Mission where the first California potatoes were raised in 1826. This vegetable, it appears, was not in particular favor with the presiding Padre, and, in consequence, the natives had the privilege of cultivating it extended to them. This privilege they improved, and Monterey being a place at which whalers occasionally stopped, the potatoes became quite an article of commerce, affording the poor Indians a glorious opportunity to secure in exchange red blankets and glittering trinkets.

In 1825, it is reported, that this Mission was in the possession of the following property, namely: 90,000 head of cattle, 50,000 sheep, 2000 horses, 2000 calves, 370 yokes of oxen, $50,000 in merchandize, and $40,000 in silver.

In 1835 this Mission was converted into secular uses, from its previous monastic relations.

THE MISSION OF SAN LOUIS OBISPO—PRESIDIO OF MONTEREY.

This Mission was founded on the 1st of September, 1772, by the Rev. Fathers, Junipero Serra and Jose Cavaller. This Mission was situated about fourteen leagues from San Migual, which we will presently describe, and was sustained by a rich and fertile valley. The name of "Bear's Glen" was given to the place by the troops of Monterey, who, while quartering at that point, had killed a large number of bears, the meat of which after being dried afforded them an agreeable subsistence. This Mission was regarded as the richest in California, and, under the management of Louis Martinez, who was presiding Priest, exerted a powerful influence in the country. By his ceaseless energies the valley was kept in a perfect state of irrigation, a launch communication was established with Santa Barbara, shade trees were planted, olives and other fruits were cultivated, the Indians in and about the Mission were taught how to hunt for and kill the otter, the skins of which became an immense source of profit. The apartments of the Missionary were said to be furnished with an almost regal magnificence. He had adobe houses of some two hundred feet in length, well filled with grain, and, after living in luxurious comfort for a number of years, returned to Spain with some $100,000 as the result of his Missionary enterprise.

Mr. Colton gives the following estimate of the wealth of the Mission in 1827, namely: 87,000 head of grown cattle, 2000 tame horses, 3500 mares, 3700 mules, eight sheep farms, averaging 9000 each; and, as an illustration of the fertility of the soil, the major domo of the place is reported to have scattered upon unploughed ground 120 bushels of wheat, which, when scratched into the soil by a California harrow, yielded 7000 bushels of grain.

MISSION OF SAN JUAN CAPISTRANO—PRESIDIO OF SAN DIEGO.

This Mission was founded in 1776, and is located eighteen leagues south of San Gabriel. It embraced a vast area of land, including a long line of sea coast, and extending back to the mountains. In 1812 an earthquake destroyed the ecclesiastic edifice.

MISSION OF SANTA CLARA—PRESIDIO OF SAN FRANCISCO.

January 12th, 1777, this Mission was founded. It is situated in the centre of a magnificent valley of the same name, about three miles from the present Town of San Jose. In topography and fertility of soil no land can be more rich and beautiful than those which surrounded this Mission. In the lands claimed by this Mission there was an abundance of cinnabar. In 1823 the following property belonged to the settlement, namely: 74,280 head of full grown cattle, (and as the increase of one year there were branded 22,400 calves,) 407 yokes of working oxen, 82,540 sheep, 1890 trained horses, 4235 mares, 725 mules, 1000 hogs, and $120,000 in goods. The Mission contained an Indian population of two thousand.

Some of the buildings were imposing in size and ornament, and the church was at one time embellished with beautiful paintings and massive silver work of great rarity and value.

In 1834 the property of the church was secularized by order of Gen. Figuaro, affording the people of the Pueblo de San Jose an opportunity to revel in the enjoyment of the sacred spoils. Many of the buildings, the orchards and vine yards, are still remaining as the monuments of the wealth that once environed them.

MISSION OF SAN JUAN BAUTISTA—PRESIDIO OF MONTEREY.

This Mission was founded in 1794, about 30 miles from Monterey. In 1820 its property consisted of 1360 tame horses, 4870 mares, colts, etc; 43,870 head of cattle, 325 yokes of working oxen, 70,000 sheep, $75,000 in goods, and $20,000 in specie. In 1834, it was also secularized, after which its cattle were slaughtered for their hides and tallow, the sheep turned over to wild beasts, and the Indians almost forced back into their primitive condition.

MISSION OF SAN JOSE—PRESIDIO OF SAN FRANCISCO.

This Mission was founded in 1797, fifteen miles from the town of that name, and the northern extremity of what is known as the San Jose Valley. This Mission was located upon some of the most productive and beautiful farming lands that can be exhibited to the human eye. Whether viewed in relation to fertility, to extent and beauty of surface, to health, to proximity to a splendid bay and harbor, it is in either particular grand and valuable. In the history of the place it is recorded that from 80 bushels of wheat, properly sown, 8600 bushels were harvested the first year, and from the volunteer crop the next year 5200 bushels were gathered. Colton says that the presiding priest told him that Julius Cæsar deposited in the Temple of Ceres 362 kernals of wheat, as the largest yield of any one kernal in the Roman Empire; and that he had gathered and counted from one kernal sown at this Mission, 365—beating Rome in three kernals.

This Mission supplied the Russian Company with their stores by annual shipments to their northern settlements.

In 1825 report gives the Mission 60,000 head of cattle, 35,000 sheep, 800 team horses, 1200 mares, 400 mules and 400 yokes of oxen, and an Indian population of 3308. In 1834 it became secularized. Splendid and thrifty vineyards, and magnificent orchards of pears, together with many of the old edifices, still remain as the relics of an exploded system of enterprise and development.

MISSION OF SAN FERNANDO—PRESIDIO OF SANTA BARBARA.

This Mission was located about fifteen leagues south of San Buenaventura, and was founded in 1797. It is surrounded by a beautiful valley, and in the neighborhood of hills from which, report says, that $30,000 worth of gold dust was mined and exported three years prior to the discovery of gold at Sutter's Mills. At this Mission a somewhat extensive distillation of brandy was carried on, in addition to the manufacture of wines, which was common to all the Missions in which vineyards were cultivated.

In 1826 it had 50,000 head of cattle, 3500 horses, 300 yokes of oxen, 60,000 sheep, 200 mules, 2500 swine, about $40,000 in merchandize and $100,000 in specie.

MISSION OF SAN LOUIS REY—PRESIDIO OF SAN DIEGO.

This Mission was founded by Padre Peyri in 1798, and is situated about twelve leagues south of San Juan. Reputation gave to the founder an enviable character for industry and great excellence of heart. He was peculiarly humane, and exerted a potent influence over the civilizing process by which the Indians were reduced to a condition of obedience and usefulness. At one time his Indian population amounted to 3000. He entered quite extensively into the manufacture of blankets, and clothing suited to the wants of the country at that time; and to supply himself with material, paid great attention to the raising of sheep. At one time he had over 70,000 of these animals which were carefully protected, solely on account of their wool.

The buildings of the Mission were extensive, capacious and comfortable; surrounded by excellent orchards and thrifty vineyards, which, in the season of fruits, imparted to the place and inhabitants such charms of beauty and luxuriousness as to dissipate the impatience of seclusion or the weariness of exile. Even up to the present time, a friend informs us that the long and capacious coridors, the immense arches that supported the building, vine arbors and lattice-works, that mark the buildings and grounds, give to the place such an air of beauty and magnificence as to enamor all who visit it. But the character of this Mission, its claims upon beauty, healthfulness and preference, can be best appreciated when it is known that it has been selected as the site of the contemplated University of California. Our State Legislature, in 1853, appointed Messrs. Ten Brook and Brush as commissioners to secure a location most suitable for such a purpose. These gentlemen, after visiting many places adopted the foregoing Mission, and the lands necessary to the Institution have been devoted to the State. As a central location it is, of course, not so desirable as many that might have been selected, but to counteract this is a magnificence of topography, a fertility of soil, and balminess of climate that cannot be surpassed, if equalled, by any section of the earth. There is, probably, no kind of fruit or flower, which is indigenous to a tropical or temperate zone, that cannot be cultivated with perfect success in the lands belonging to this Mission. Oranges, limes, lemons, and the fig, olives, pomegranates and the grape, if not by nativity, the inhabitants of the soil, have been already affiliated to the place, and, if possible, improved by the transfer.

MISSION OF SAN GABRIEL—PRESIDIO OF SAN DIEGO.

This Mission was founded in 1771, upon one of the most fertile and beautiful valleys of Alta California. Fruits were cultivated in the greatest abundance yielding the most encouraging revenues, and delicious wine, in great quantities, was manufactured from the extensive vineyards of the Mission grounds. The principal business of the Mission was the distillation of brandy and wine, of which about a thousand barrels were annually made.

In 1829 it had 75,000 head of cattle, 4000 horses, 350 mules, 150 yokes of oxen, 54,000 sheep, and a few swine. In this Mission was located the celebrated rancho of Santa Anita.

MISSION OF SAN ANTONIO DE PADUA—PRESIDIO OF MONTEREY.

This Mission was founded in 1771, was very prosperous in its career, and in 1802 its total population amounted to 1052:

MISSION OF DOLORES—PRESIDIO OF SAN FRANCISCO.

This Mission was founded in 1779, and is situated on the south side of the Bay of San Francisco, and about two and a half miles from the city. Its lands, which were less alluvial and fertile in the aggregate, embraced forty leagues in circumference.

In 1825 its stock consisted, as estimated, of $28,000 in merchandize, 60,000 head of cattle, 1000 tame horses, 1500 breeding mares, 85 stallions, 700 mules, 100,000 sheeep, 1000 hogs, 400 yokes of oxen, 30,000 bushels of wheat and barley, and 19,000 in specie.

By order of Gen. Figuaro, it was secularized in 1834, and despoiled of its wealth, beauty and influence.

MISSION OF SAN BUENAVENTURA—PRESIDIO OF SANTA BARBARA.

This was situated about nine leagues south of Santa Barbara near the sea board, and was founded in 1782. It covered an area of land of over 1400 square miles, and it is said that but two hundred of it were tillable. It had two vine-yards and a good orchard. In 1825 it had 36 head of cattle, 3000 horses, about 200 oxen, 400 mules, 25,000 sheep, a large number of goats and hogs ; in merchandize, $30,000 ; in specie, $30,000, and in church ornaments and other valuables, $50,000.

It was secularized in 1835, and, like the other Missionaries, has fallen into a rapid decay.

MISSION OF SANTA BARBARA—PRESIDIO OF SANTA BARBARA.

This Mission is located twelve leagues south of Santa Inez, and was founded in 1786. It is a delightful climate, and in soil and topography is well adapted to the cultivation of the grape and other fruits.

The main building in this Mission is reported to have been uncommonly elegant and elaborate in style and finish. Between this and the sea coast is a pecipitous mountain range over which, it is said, no vehicle ever passed, except a field-piece belonging to a battalion of Col. Fremont. The lands of the Mission were very extensive, and in 1828 the following property was recognized, namely : 40,000 head of cattle, 3000 horses, 6000 mules, 22,000 sheep, and 90 yokes of oxen.

MISSION OF SOLEDAD—PRESIDIO OF MONTEREY.

This Mission, which was founded in 1791, is situated about thirty-three miles south of Monterey. The presiding Padre is reported as having been the greatest agriculturist of any of his cotemporaries. He is said to have irrigated an immense tract of land belonging to the Mission, by means of an aqueduct extending some fifteen miles, which was constructed by his Indians. The Mission became almost overrun with horses, and to preserve a sufficient pasturage for other stock they resorted to giving them away to parties who would remove them from the premises. Fruits were extensively cultivated. 3,500 bushels of wheat were harvested from 40 bushels sown, in 1820.

In 1826 it owned 34,000 head of cattle, 75,000 sheep, and 250 yokes of oxen, besides its almost innumerable horses.

MISSION OF LA PURISSIMO CONCEPTION—PRESIDIO OF SANTA BARBARA.

This Mission was founded in 1787, and is reported as having contained thirteen hundred square miles. It abounded with wild cattle to so great a degree as to induce the Priest to give general permission to the people of the country to kill them for their hides and tallow. The horses upon this Mission were particularly celebrated for their fleetness, and also for their astonishing feats under the saddle.

In 1830, the Mission was reported as having 45,000 head of cattle, 380 yokes of oxen, 7000 horses, 30,000 sheep and a very large number of hogs.

MISSION OF SANTA CRUZ—PRESIDIO OF SAN FRANCISCO.

This Mission is situated on the coast, north of Monterey, and was founded in 1794. It was specially distinguished for its agricultural resources, harvested immense crops of grain, and became a Mission of great wealth and power. Its Church is said to have been highly embellished with silver ornaments, the silver plate pertaining to it, bearing an estimate of $25,000.

MISSION OF SAN MIGUAL—PRESIDIO OF MONTEREY.

This Mission was founded in 1707. It was an inland location, and situated about sixteen leagues south of San Antonia. The site was an elevated one, and probably more barren than any other Mission described; yet it had a circumference of 55 leagues, and enough good land to sustain an immense stock. In 1822 this Mission is reported as having 95,000 head of cattle, 4,200 head of horses, 2000 yokes of oxen, and about 50,000 sheep. The unusual number of mules on this Mission springs from the necessity of doing a great deal of packing to and from the market.

MISSION OF SANTA INEZ—PRESIDIO OF SANTA BARBARA.

This Mission was situated between Santa Barbara and La Purissimo. The land belonging to it was more circumscribed, yet it had ample means of sustaining a large stock. Its horses were held in great repute, and its property, in 1823, was estimated at $700,000.

MISSION OF SAN ANTONIO—PRESIDIO OF MONTEREY.

This Mission was situated about 35 miles south of Soledad, upon a stream, bearing the name of the Mission. The buildings were enclosed by adobe walls a thousand feet long, composing a square. Its lands were forty leagues in circumference, and consisted of seven farms; to each of which was devoted a Chapel and houses. The lands were finely irrigated by means of canals, conducted from mountain streams, for a distance of twenty miles. In 1820, this Mission was in possession of 50,000 head of cattle, 5,000 horses, 550 mules, 400 yokes of oxen, 5I,000 sheep and 100 hogs. Its seccularization, as in all other instances, was rapidly followed by ruin and decay.

CHAPTER II.

THE CAUSES THAT LED TO THE ESTABLISHMENT OF THE FOREGOING MISSIONS.

Thus have we given a partial description of the early Missions of California. That they constitute a source of thrilling interest, must be admitted, after a glance at their number and extent, and the influence they exerted over the native population. But in order to appreciate in the highest degree, the interest they afford, something should be known of the previous efforts to settle and subjugate the country, and although we did not sit down to write a history of California, yet we will precede our deductions upon the Missions, with a reference to the causes that brought the territory into subjection, through the Reverend Fathers of the Roman Catholic Church.

The discovery of California in 1534, by Grizalva, under Cortez, gave rise to a strong feeling of anxiety on the part of Cortez himself, to visit and explore the country. He accordingly fitted out three vessels at a place called Tehauntepec, where he joined them by an overland march through Mexico, accompanied by Priests, soldiers settlers and slaves. On one of these vessels he embarked, and with the other two soon arrived at Santa Cruz. After spending some time in explorations of the country, and ascertaining but little that could be turned to profit, he was compelled to return as far as Acapulco, on account of the operations of his rivals in Mexico. But although Cortez was interrupted in his attempt to visit and examine the country, yet he continued to prosecute investigations through his officers, whom he furnished with ships, provisions, etc., from his own means.

To a principal officer by the name of "Francisco de Ullua," he entrusted three ships, which were engaged for a space of two years, in exploring California, nearly the entire length of the sea coast, from the Gulf of California to its northern boundary. And yet this highly complimented explorer of 1537, with ample support for a two year's cruise, returned from the expedition with the following results, to wit: a confirmation of the "*extreme barrenness* of California, and the *rudeness* and *poverty* of the *natives*, who were found *quite naked;* together with a discovery of the indigenous goats of the territory, and some vessels of clay, in the possession of the Indians.

Many subsequent attempts to explore and settle California, says Mr. Forbes, in his history, were made by the Viceroys of New Spain, and also by private adventurers, but with little or no results of consequence, for nearly a century. In 1562–3, Juan Rodriquez Cabrillo succeeded in making an extensive survey of the western coast of the Peninsula, and in 1596, Don Sebastian Viscayno was given command of an expedition to the Gulf, and made an effort to permanently settle the country by establishing a garrison at Santa Cruz, which had been several times visited. From this point he is said to have examined the country one hundred leagues north. In the northern section he found the Indians less peaceful, having some of his men killed by them. But again the extreme barrenness of the country obliged him to abandon the expedition and return to New Spain at the end of the year. But in 1602 this gentleman made a somewhat more successful effort at discovery, having reached the harbor of San Francisco, after successively discovering the harbors of San Diego and Monterey.

Some twenty-four years prior to this, Sir Francis Drake entered the harbor of San Francisco, where he remained some time, extending his explorations into the interior, and not knowing of the previous discovery of the country, he took possession of it for England and named it "New Albion."

But although an immense amount of money had been expended in the sixty years' effort to ascertain the true character and condition of California by Spanish natives and individuals, and although the result was little more than the establishment of a forbidding *barrenness* of country, yet there was a lingering fancy in the mind of Cortez, that California would prove to be the special and glorious El Dorado of the world. Indeed, the Spaniards generally, entertained a conviction that this country abounded in gold and silver, pearls and precious stones. And it is not wonderful that Cortez, who had extorted from the Aztec Chiefs of Mexico, such enormous exhibitions of gold—that a man whose vision had been filled with the brilliance of national plunder, and whose heart had become imbued with an insatiable thirst for dominion and wealth, that such a man should make persevering and determined efforts to ascertain what California really was. A knowledge of his character makes it an easy matter to understand the reluctance with which he gave up the exploration of such a country as he believed California to be.

But it was not alone Cortez who indulged in dreams of golden and exhaustless wealth through discoveries and possessions in this land of Ophir. The Spaniards, generally, who were connected with Cortez in Mexico, had become imbued with an idea that California was a vast storehouse of wealth, outvieing in its feebly retained possessions the plundered resources of Montezuma, or the almost incredible treasures of the outraged and murdered Peruvians. Hence with such a conviction entertained by this great conqueror of Mexico, Cortez, and concurred in by all the survivors who had been associated with him in his explorations of that country, it would have been more singular had there been an indifference to the opening of California, than it was to see them so long attempting to discover and possess its hidden treasures.

As yet, however, their exertions were almost entirely fruitless, excepting in the general conviction which had fastened itself upon the minds of the explorers, that California was, to all intents and purposes, a *barren* country. This impression, which was so generally received, shows conclusively that very little daring and enterprise entered into the explorations made. And in as much as these successive reports of a forbidding and barren country did not dissipate the Spanish ardor to know still more of California, it is reasonable to suppose that gold, pearls and precious stones, constituted the real source of attraction among the Spaniards. This, indeed, was an all powerful magnet, and to the minds of the soldiers of Cortez it gave inspiration to greater exertions, and to a greater submission to hardships, than any other motive could have induced. The fondly treasured idea of untold and immeasurable riches in the heart of California, caused continual efforts to be made to discover their location. Expedition after expedition was fitted out by public and private enterprise, but, strange to say, with little additional results during another century.

Many of these expeditions, Mr. Forbes says, were fitted out for the purpose of civilizing and christianizing the natives of the country, but the success of the attempts was almost too limited to justify one in believing that the religious motive was of an unmixed and disinterested character.

In 1615, a Capt. Juan Iterrbi prepared an expedition to the country upon his own individual resources, and it resulted in the procurement of a fine collection of pearls, among which was one pearl valued at $5000. This gave a new impulse to the previous conceptions of California wealth, and in 1632, '33 and '34, Capt. Francisco de Ortega made three successive efforts to visit the same ports. In 1648 another governmental effort was made to settle, civilize and improve the country. But, like his timid predecessors, the commander had the misfortune to have been beaten back again, profitless and unglorified from the insuperable barrenness of the territory. Among many other trials of individuals and the government, made, at a subsequent date, none seem at all distinguished, at any rate until the expedition under Admiral Otondo, in 1683. This man visited and remained in the country longer than his predecessors generally, and had his operations more particularly signalized by the Missionary efforts of Father Kuhn, to christianize the aborigines through the medium of religious instructions and baptisms. But the success of this experiment was so very limited that a determination to return was quickly matured by the Admiral, no one, probably, feeling any regret at the intention except the good old Father Kuhn. This old man had relinquished a professorship in a popular German university to engage in the philanthropic task of humanizing the Indians of America, and he was not at all convinced of the impracticability of the project. But his return with the expedition furnished him with new opportunities to advocate his benevolent designs. He found that the Government of Mexico had come to the conclusion, in their absence, that the settlement of California was impracticable, but, at the same time, the authorities had very warmly recommended the Society of Jesuits to attempt what they had failed in accomplishing, and as an encouragement offered them a fixed amount of money from the King's Treasury. This proposition, upon the part of the government, was most cordially accepted by the forementioned Society, and old Father Kuhn (who was called Kino in Spanish,) and his previous associates were thus given a glorious opportunity to stimulate and strengthen the now unmixed determination to settle and improve the country through religious influences.

"In contemplating what was thus effected, it is no wonder," says Forbes, "that the historian of California, himself a member of this holy order, should regard the cause as hallowed and the agents as under the protection of Heaven."

"The great conquerer, Hernando Cortez, (this historian remarks,) several times employed in the conquest of California, the whole force he could raise. His example stimulated many private persons: even Governors, Admirals and Viceroys, made the attempt. At last the Kings of Spain themselves, took the scheme into their own hands, yet the result of all such vast expenses, such powerful efforts, was, that the reduction of California was given over as impracticable."

And so indeed it was, by the means made use of by men, but not by those which God had chosen. Aims and power were the means on which man relied for the success of his enterprise, but it was the will of Heaven that this triumph should be owing to the meekness and courtesy of his ministers, to the humiliation of the Cross, and the power of his Word. God seemed only to wait till human nature acknowledged its weakness, to display the strength of his almighty arm, confounding the pride of the world, by means of the weakest instruments.

In this laudable Missionary enterprise, guided and controlled by such a man as Father Kino had proven himself to be, there was legitimate promise of improvement in the system of exploring California. This excellent man made the matter so really disinterested, that he acquired a moral and social magnetism, infinitely more effective in the conciliation and subjugation of the aborigines of California, than all the displays of power and military resources with which the governments had expected to make a conquest of the country.

Father Kino was most happily qualified for the noble and exalted function which he was to perform in this great Missionary effort to colonize California, and subdue and civilize the miserable Indians by which it was peopled. And in addition to this, he was ably sustained by Fathers Salvatierra, Ugarte and Piccolo. These distinguished divines united with him in a design which was not only novel in its political relations, but which was, in a Christian point of view, grand and sublime, and, in respect to the previous ineffectual governmental efforts to settle and subdue the country, it was emulative and glorious. Such an opportunity to test the comparative civilizing power of Divine Truth and military might, had, perhaps, never been realized before. Therefore, taking all these motives into account, and reconsidering the natural effect of those inducements which operated upon the feelings of the foregoing Religious Order, we cannot wonder that in following up their history we should find such evidences of success as those that finally resulted from Missionary labors in California. Enterprise and determination could not be easily given a stronger impulse. For if these Religious Colonizers of California had an exalted faith in the power of Divine Truth to encompass a new country and subdue its savage inhabitants, they were now given a liberty and patronage which, when combined with a strong and deep spirit of emulation, made it almost certain that their faith must be confirmed by success. And then, on the other hand, if they, too, were turning their eyes into the more carnal channels of gold, of pearls and precious stones, there was no reason why their expectancy and spirit of exploration should not certainly equal, if not excel, that of their predecessors. They had the results of previous efforts to guide them, and though these did not amount to much, yet they evolved an advantage. But we cannot affect an indecision of mind in regard to the real motives that influenced the forementioned Missionaries in their approaching experiments in colonizing California. Probably no man ever engaged in Missionary labors with purer designs, or with more exalted, more noble and daring purposes than old Father Kuhn. And, as we have before said, he was most ably sustained in the services of Salvatierra, Ugarte and Piccolo. Father Kino had previously established his devoted interest in the cause of civilizing and reducing to Christianity the Indians of California, and as an evidence of his confidence in Father Salvatierra, he gave him a principal position in the expedition to this country. While Kino himself remained on the opposite coast of Cinaloa, and Ugarte in Mexico—both actively engaged as Missionaries of the Cross—Father Salvatierra was dispatched to the conjectured El Dorado of Cortez.

In the organization of this extensive Missionary enterprise, a vast amount of interest and enthusiasm had been enkindled. The government had appropriated to the Jesuits the fullest powers to manage everything pertaining to the Missions as their judgments and wishes dictated—reserving to itself the right of claiming the territory explored by them as Spanish possessions. And, although this was the demand of a government which essentially refused pecuniary aid, yet it was conceded, and did not at all dampen the ardor and enthusiasm which the Rev. Fathers had already excited. On the contrary, as the scheme of the Missionaries advanced to maturity, the interest in preparation became greater and greater, and exhibited itself in most substantial contributions from the rich among the laity, and from the different religious associations of New Spain.

Thus have we seen how the effective exploration of California was diverted from the hands of the government and placed in the then more energetic hands of Catholic clergymen; how the Spanish expeditions, sustained by immense national patronage, had continually failed, and in consequence of said failures how an appeal had been made to the power of Divine Truth to accomplish what might and money could not achieve. There is something so interesting in this concession to the Christian Faith, something so pleasing in the resulting compliment to a conciliating grace, to the wooing and subduing kindness that mark the exercise of Christian virtues, to something so reliable in conjecture as the sequel proves, that we can scarcely refrain from an indulgence in a chapter of reflections upon its moral bearings.

But having traced up the influences that converted the Jesuitical Order of Mexico into an immense and powerful Missionary organization for exploring new countries, for conciliating the friendships of savages, and for humanizing and Christianizing them—we can afford to delay the reader with a chapter upon the first experiments made by the Rev. Fathers mentioned. And in doing this we shall introduce a faithful transcript of Mr. Forbes and Father Venegas, feeling assured that the interest of the narrative will richly compensate any one for the time occupied in reading it.

CHAPTER III.

FIRST EXPERIMENTS OF THE MISSIONARIES.

"On the 10th October, 1697, Father Salvatierra sailed from the Port of Yaqui, on the eastern side of the Gulf, with his small band of five soldiers only and their commander, and on the third day reached California. For some days they were employed in looking out for a convenient station, and at length fixed on the Bay of San Dionisio, ten leagues north of San Bruno, where Admiral Otondo had pitched his camp. There, on the 19th October, they landed, and finding a convenient spot near a spring of water, about a league and a half from the shore, they pitched their tents and transported from the ships their stores of cattle and provisions, the good Father being the most active laborer of the party. Here (says Father Venegas) the barracks of the little garrison was built, and a line of circumvallation thrown up. In the centre a tent was pitched for a temporary chapel; before it was erected a crucifix with a garland of flowers, and everything being disposed in the best manner possible, the image of our Lady of Loreto, the Patroness of the Conquest, was brought in procession from the ship and placed with proper solemnity. On the 25th, formal possession was taken of the country in the name of the King of Spain and the Indies.

"Before proceeding further with the history of these true soldiers of the Cross, and the minute but not uninteresting warfare which they maintained for so many years against the rude natives of California and its ruder soil, until at length they triumphed effectually over the former and as much over the latter as was possible, it may be well to notice briefly the nature and extent of the obstacles they had to contend against.

"In all the numerous attempts that had been made to make a settlement in this peninsula, it was invariably to the rugged and unproductive nature of the country, not to the opposition of the natives that the failures were attributable. Like all the aboriginal tribes encountered by the Spaniards in America, the Californians are a feeble and weak hearted people; and although when irritated or oppressed they not seldom turned on their tyrants, and when revenge could be safely indulged, did not hesitate to cut off openly or by stratagem such as fell into their power; still they never offered any effectual resistance to the invaders, hundreds or even thousands of them being often kept in awe by a mere handful of armed Eurepeans. These poor people had good reason both to fear and hate the Spaniards, as they were often greatly maltreated by the military and commercial adventurers, who visited their country before the Jesuits, and more especially by the traffickers for pearls, by whom the Indians were frequently kidnapped and forcibly compelled to act as divers. Yet it was remarkable that from the beginning they showed little unwillingness to be present at or even to share in the ceremonies of the Catholic religion, (which were seldom lost sight of by the adventurers of those days, however stained with crime,) or to benefit from the supplies of food which they derived from their visiters. At the period of the landing of the Jesuits, the natives seem to have been in precisely the same condition as to civilization, as when first visited by Grijalva one hundred and sixty years before. They were little advanced from the rudest state of barbarism. Properly speaking, they had neither houses nor clothes, although they made use of temporary huts formed of boughs of trees and covered with reeds, and the women wore girdles or imperfect petticoats, formed also of reeds; the men were entirely naked, except that they wore ornaments for the head composed of feathers, shells or reed. They lived by hunting and fishing, and on the spontaneous produce of the soil. They cultivated no species of grain or esculent vegetable, and they seemed to possess no other arts than what were necessary for the manufacture of nets and bows and arrows, for catching prey by sea and land, and for the construction of their imperfect clothing and ornaments. Some of the tribes had a few vessels of clay, but their chief articles for containing both solids and liquids, were constructed of reeds. Even their means of transport on the water, were rude rafts formed of bulrushes, no boats or canoes of wood or hides being found among them. They seem scarcely to have had any fixed forms of government or religion; although the different villages and tribes submitted, on important occasions, to the direction and rule of some one or more who were distinguished by their age, strength; or other natural gifts; and there was, also, a class of persons among them, who were the ministers of some superstitious observances, and the pretenders to preternatural powers in the prediction or production of future events, and in the infliction or cure of diseases.

At the time California was visited by the Jesuits, the whole of the country explored by them from Cape San Lucas as far north as the 28th degree of north latitude, was thinly and irregularly peopled by numerous tribes more or less stationary in their rude villages or encampments, differing very little in their general habits and condition, yet sufficiently marked to be distinguished by fixed names, and speaking different languages or different dialects of the same.

"The shores of California abound in the greatest variety of excellent fish, although from ignorance or stupidity the natives derived much less benefit from this exhaustless storehouse than it was capable of affording. In one respect, indeed, this storehouse was too productive for their happiness, since it was the fame of its pearls which, ever since its first discovery, had attracted so many adventurers to its shores, bent on enriching themselves and altogether regardless of the welfare or even lives of the natives. Great numbers (says Father Venegas) resort to this fishery from the continent of New Spain, New Galicia, Culiacan, Cinaloa and Sonora; and the many violences committed by the adventurers to satiate, if possible, their covetous temper, have occasioned reciprocal complaints; nor will they ever cease (adds the good Father) while that desire of riches, that bane of society, predominates in the human breast. And nothing can show more strongly the pure and disinterested motives of the Jesuits than the law which they obtained, after much trouble, from the Mexican government, viz: that all the inhabitants of California, including the soldiers, sailors, and others under their command, should be prohibited not only from diving for pearls but from trafficking in them This law was the cause of great and frequent discontent among the military servants of the Fathers, and even threatened the loss of their conquest; but it was, nevertheless, rigidly enforced by them during the whole period of their rule. Fishing for pearls was not, indeed, prohibited in the Gulf, and along the shores of California, but it was carried on by divers brought from the opposite shores by the adventurers engaged in it.

"Before returning to the history of Father Salvatierra and his little band, I must be permitted to make one remark. If the reader should be disposed to smile at the minuteness with which now, or hereafter, we may dwell upon the humble proceedings of the Fathers and their children, the Indians, or may detail the puny wars of their Lilliputian armies, we can only offer the same excuse preferred by the good Father Venegas in similar circumstances. 'These particulars (he says) may possibly appear trifles not worth mentioning; but let me entreat the reader to try their value in the balance of reason. Let him reflect what an agreeable sight it must be, even in the eyes of the Divine Being himself, to see men who might have acquired a large fortune by secular employments, or lived in quiet and esteem within the Order they had chosen, voluntarily banish themselves from their country and relations, to visit America; and when there, resign employments and leave a tranquil life, for disappointments and fatigues; to live among savages, amidst distress and continual danger of death, without any other motive than the conversion of the Indians. At least let every one ask himself, whether any worldly interest whatever could induce him to employ himself in such low and obscure actions, and amid such privations and dangers, and he will be convinced of the importance and dignity which actions, contemptible in the eyes of men, receive from the sublimity of the motives which inspire them.' "

The Rev. Fathers cannot appeal in vain for consideration and esteem, when they afford such evidence of earnestness and sincerity in doing good. A man may affect philanthropy, and talk for a long time with emphasis upon his desire to labor for the general improvement of mankind. But if his humanity be allowed to evaporate in those fire-side paroxisms of kindness and piety which a luxurious home can alone develope and sustain, he can hardly be expected to be canonized as a benefactor. Such was not the evidence that these good men can produce, by the record of acts which they have left behind them. Leaving positions of honor, security and profits, at home, they embarked in an enterprize of certain dangers, of discomforts, toils and abuse, from which they could expect but little requitement, except that which the Christian feels when conscious of having discharged a sacred and sublime duty.

These men had engaged in a work in which they felt a higher interest than that which can be excited by gold. They had but little sympathy with that class of explorers which had preceded them, and, consequently, were prepared to "labor and to wait." Their first object was to acquire a knowledge of the Indian tongue, that they might the better convince the subjects of their Missionary labors what they had settled among them for, and how they designed to improve their condition. This itself was no small task, and when one adds to this labor the severe toils, the absolute hardships which they were compelled to endure, then can he better and more truthfully appreciate the hallowed motive that projected and sustained the enterprize.

They had left relations in which comforts and luxuries could be constantly enjoyed, to meet hunger and toil in the gloomiest of all exile. They were determined to learn the Indians around them habits of industry, not by precept, but through the unfailing medium of example.

They dug up clay, mixed it with water, moulded it and converted it into adobes. Then built houses of shelter and defense. Laid out farms, prepared the ground for crops of grain and vagetables,—dug trenches, set out fruit trees and relaxed themselves from these severe toils by patiently teaching the natives the nature of their relations to the Great Spirit who oversaw all their works, and held them responsible for every thought and act.

It could not be expected that a handful of men, with limited facilities, could make very rapid progress in completely revolutionizing all the habits, instincts and education of the Indians surrounding them. They could not expect to civilize such characters as the Aborigines of California without bringing to their assistance every stratagem that tact or illusion could furnish, nor could they reasonably expect that they would not be frequently called upon to defend themselves by force against the occasionally roused passions of the natives.

The very first effort of the Missionaries was to conciliate the Indians to an interest in the reading of prayers. To do this they apportioned to each one a daily ration of boiled maize, of which they were very fond, so fond that they soon began to manifest more interest for the maize without the prayers, which were religiously associated with their meals, than with them.

Thus sprung up the first difficulty between the good old Fathers and their irreligious subjects. Rather than to have the prayers they came to the conclusion that they might peril a fight for the provender, which they could more easily appreciate. Accordingly they marshalled their forces, and with an army of 500 warriors made an attack upon the little Missionary garrison of ten men all told. Their superior numbers gave them an excellent start in this their first combat with the Spaniards, but they soon ascertained that there was something in gunpowder too terrible and destructive to be prudently contended against; and, after losing in dead and wounded a few of their number, they were willing to capitulate and accept a peace which required them to season their meals of corn with the same prayers against which their carnal natures had so indiscreetly rebelled. This little divergance from the general plan of reliance upon the power of Christian Truth and kindness, gained for the Missionaries an advantage which no theological form of sulphur could have achieved. It was a kind of preaching which even savages could appreciate through the medium of two important senses—hearing and feeling.

After having made a very gratifying progress at this point of operation, Father Salvatierra was joined, in the course of two or three years, by Father Francisco Mario Piccolo and Father Ugarte. In the month of August of 1670, it was said that these Missionaries had subdued the Indians for a space of fifty leagues, founded four towns, with above 600 Christians and 2000 adult Catechumens. They had established different missions, at one of which Father Ugarte became the presiding priest. A great difficulty had before existed in the Missions, springing from a lingering reliance for support upon external assistance, and to avoid this Father Ugarte determined to make the Missions self-sustaining corporations. To do this he adopted a system of training the Indians, eminently successful, though trying and difficult to carry out. But as this can be better appreciated from the pen of Father Venegas, we will quote his description of the plan.

" In the morning, after saying mass, and at which he obliged the Indians to attend with order and respect, he gave a breakfast of (pozoli) or maize to those who were to work, set them about building the church and houses for himself and his Indians, clearing the ground for cultivation, making trenches for the conveyance of water, holes for planting trees, or digging and preparing the ground for sowing. In the building part Father Ugarte was master, overseer, carpenter, bricklayer and laborer. For the Indians, though animated by his example, could neither by gifts or kind speeches be prevailed upon to shake off their innate sloth, and were sure to slacken if they did not see the Father work harder than any of them : so that he was the first in fetching stones, kneading the clay, mixing the sand, cutting, carrying and barking the timber, removing the earth and fixing materials. He was equally laborious in the other tasks, sometimes felling trees with his axe, sometimes with his spade in his hand digging up the earth, sometimes with an iron crow splitting rocks, sometimes disposing water trenches, sometimes leading the beasts and cattle which he had procured for his Mission to pasture and water; thus, by his own example, teaching the several kinds of labor. The Indians, whose narrow ideas and dullness could not at first enter into the utility of these fatigues, which, at the same time, deprived them of their customary freedom of roving among the forests, on a thousand occasions, sufficiently tried his patience; coming late, not caring to stir, running away, jeering him, and sometimes even forming combinations and threatening death and destruction : all this was to be borne with unwearied patience, he having no other resource than affability and kindness, sometimes intermixed with gravity to strike respect; also, taking care not to tire them, and suit himself to their weakness.

In the evening, the Father led them a second time to their devotions, in which the rosary was prayed over and the Catechism explained ; and the service was followed by the distribution of some provisions. At first they were very troublesome all the time of the sermon, jesting and jeering at what he said. This the Father bore for a while, and then proceeded to reprove them ; but finding they were not to be kept in order, he made a very dangerous experiment of what could be done by fear. Near him stood an Indian in high repute for strength, and who, presuming on this advantage—the only quality esteemed among them—took upon himself to be more rude than the others. Father Ugarte, who was a large man and of uncommon strength, observing the Indian to be in the height of his laughter, and making signs of mockery to the others, seized him by the hair and lifting him up swung him to and fro; at this the rest ran away in the utmost terror ; they soon returned, one after another, and the Father so far succeeded to intimidate them, that they behaved more regularly for the future."

These extraordinary labors of Father Ugarte were blest to a wonderful degree, and in a few days he found himself surrounded with the most encouraging indications of improvements, associated with comfortable houses, store rooms, fine farms, excellent gardens, fruit trees, wine presses, horses, sheep, etc., were the many Christian Indians who had become completely transformed in character, habits and appearance. "His sheep," says Forbes, "brought originally from the coast, being sufficiently increased, that his Indians might make the best of their wool, he determined to teach them the best method of preparing, spinning and weaving for clothes. Accordingly he himself made the distaffs, spinning wheels, and looms. Though to forward and improve so beneficial a scheme he sent Tepic for one Antonio Moran, a master weaver, and allowed him a salary of five hundred dollars. Moran staid several years in California, till he had sufficiently instructed the Indians in their trade and some other handicrafts. By these new manufactures, he saved the vast expense of sail cloth and baize, a measure both political and pious."

Thus did these noble men toil in their benevolent enterprizes with ever varying success until 1710. At which time most important events transpired, among which one of a most discouraging character took place in the appearance of epidemic small pox among the domesticated Indians. This gave the disaffected sorcerers whose offices and influence had been superceded by the Missionaries, an opportunity of begetting a general discontent, by charging this destructive evil to the intercourse of the Spaniards with them. Besides the troubles to which the epidemic gave rise, and the mortality which is ever induced by the civilization of American Indians, was the severe affliction which was incurred this year in the death of the great originator of the scheme, Father Kino. This event alone was a severe and calamitous injury to the Jesuitical Missionary scheme of Lower California. He had been the life and soul of the enterprize, and in every relation he sustained, there was such a display of energy, such an exhibition of zeal and kindness, that he inspired every body with love and admiration. But still the cause had by no means been bereft of all its supporters. In Fathers Ugarte and Salvatierra there was an embodiment of an almost equal degree of earnest devotion to the great cause, and a kind of moral and social character nearly as concilliating and attractive as that which irradiated the character of the noble old Missionary, whom death had removed from such a field of usefulness. These men sought still to expand their sphere of operations, and made every effort to sustain and improve the works which had been so well performed prior to the death of Kino. They obtained a modification of the laws by which the Missions were governed, which made the general management more perfect, and which laws prevailed to a great degree through all the subsequent missionary movements.

In the history of these Missions a record is made of a violent hurricane which took place in 1717. It is reported as having not only destroyed houses, churches, and all signs of improvements which art contributes to man's comfort, but it is said that such was the violence and irresistable fury of the storm that it uprooted trees and accumulated maddening torrents that swept all the soil from the earth, leaving nothing in the line of their destruction but rocks and stones. In commenting upon this source of destruction "Venegas" remarks "that if, in former ages, these hurricanes were frequent in California, it is not surprising that all its mould should have been swept away, its bare rocks alone remaining, and its plains and valleys covered with heaps of stones."

"In 1730 the Mission of San Josef, close to Cape San Lucas, was founded, and, soon after that, of Santa Rosa, near the same extremity of the peninsula; and although they seemed to be attended at first with usual success, this was shortly put an end to by a general rising of all the natives in this district. There being only two or three soldiers among all the Missions, no effectual resistance could be offered to the "rebels," as the Fathers termed them, and accordingly they soon had everything their own way. In 1734, the two Fathers Carranco and Tamaral, were murdered, as well as one of the soldiers; the other Fathers and the soldiers fled, and the whole of the Southern Missions were lost. Apprehensive of similar disasters in other parts, the Fathers were recalled from the Northern Missions, and at one time, in the following year, not a Spaniard remained in the country except Loreto. In this disastrous state of affairs they were relieved by a reinforcement of troops from Cinaloa, headed by the Governor, who attacked the Indians in different places, and finally reduced the country to tranquility. After some time the Missions were gradually restored, and the Fathers proceeded in their works of conversion and civilization. Accordingly we find from an official report, drawn up by the Missionaries, 1745, that not only all the old stations were reoccupied but several new ones planted. They amounted in all to fourteen, besides two then in progress, viz:

1. Loreto.
2. San Zazier.
3. De los Dolores del Sur.
4. San Louis Gonzaga.
5. San Josef de Commander.
6. Santa Rosalia de Mulege.
7. La Conception.
8. Guadalupe.
9. San Ignocia.
10. De los Doles del Norte.
11. San Iago del Sur.
12. La Paz.
13. San Josef del Cabo de San Lucas.
14. Santa Rosa.

"No very great progress, however, could be made in so unpromising a field, from which the whole race of Missionaries had been removed in 1767, on the general expulsion of the Jesuits from the Spanish dominions. At this time the number of Missions were sixteen. The exiled fathers were superceded in their Missions by a body of Franciscans from Mexico; but they were soon displaced by the Dominican monks, who still keep possession of the country.

"In 1786, as Perouse informs us, the Missions were fifteen in number; ten of them being still possessed by the Franciscans, the others by the Dominicans. The whole number of converted Indians at that time was estimated at about four thousand. The garrison of Loreto consisted of fifty-four soldiers, and this, and a few soldiers furnished to the other Missions, was the whole military force of the country."

CHAPTER IV.

RATIONAL DEDUCTIONS.

Thus have we given a sufficiently complete sketch of the Missionary movements in Southern California, to enable our readers to appreciate more correctly the historical references to Missions which we made at the beginning. But for the almost superhuman exertions of these good men of the Order of Jesuits, but for their disinterested devotion to the cause of civilizing and enlightening the naked and miserable aborigines of California, there would have been less effected by their successors who subsequently founded the more successful Missions of the North. Between the Franciscans and Dominicans, who established these Missions, and their Jesuitical predecessors, there was, perhaps, no very great moral distinction, but the field of operation opened to them was infinitely more prepossessing in topography and fertility of soil. They displayed throughout an untyring desire to increase and improve their Missionary establishments, and made most urgent and importunate appeals to the government of Mexico, to assist them in their efforts to more thoroughly open and develope the country. But the governmental responses to these appeals were comparatively feeble and ineffectual, and the immense resources of the country continued to languish in dormancy and concealment, except as they were brought into view by the industry of the foregoing Missionaries. The wealth of these Missions rapidly accumulated and the unrestrained reports of their success, which were sent back to the Mexican government, ought to have excited a national and popular effort to develope and protect the country; but it had little effect upon a people who have had greater opportunities for national advancements, with less result, than almost any nation or class of persons in the world. Their spirit of adventuve and discovery had been enkindled by a love of gold, and where the glittering element of attraction had not been accumulated by other hands, less tenacious of its grasp, or weaker in the defence of it, they did not develope a decent degree of enterprize in the exploration, development or improvement of new countries.

Here was a territory abounding with the most beautiful, most extensive and fertile valleys in the universe, with magnificent and almost exhaustless forests, an immense country, margined by the grandest ocean in the world, watered by beautiful rivers, and adorned by capacious harbors that are now becoming the very homesteads of Commerce; and yet, though contiguous to and regarded as a part of the Mexican possessions, it was, nevertheless, insufficient to excite the Mexican government or people with an amount of enterprize necessary to its settlement or appreciation. A few earnest votaries of religion, who had dedicated themselves to the office of benefitting untutored savages, were the only individuals of the nation who had the moral courage to undertake a real settlement of California. Cortez, and many associates in authority, manifested a considerable interest in exploring the territory, until they were pretty well convinced that it had no Incas to plunder by villiany, nor Montezumas to crush by stratagems. The mere fact of its appearing as a rich, productive and salubrious country, requiring nothing but industry to make it bud and blossom.as a rose, was of small moment, to that then powerful nation, which was revelling in the usurped possessions and comforts of a class of beings more advanced in the habits of civilization than the California Indians.

But the Spanish governments, interested in the settlement and development of this territory. were not the only sources of obstruction to the complete occupancy and improvement of the country. There was something in the education of these Missionaries themselves, to whom Mexico was almost exclusively indebted for establishing its claim upon these important possessions, that militated against the national, commercial and political relations of California. They were educated in Cloisters, cultivated and confirmed in habits of seclusion from the secular and political connexions of State, almost insusceptible of interest in any thing that was not specifically related to their religious hobby of civilizing the miserable natives of the country, and elevating them in the scale of rational and accountable beings. Their object was not to open new territory for the purpose of increasing the commercial or political power of the nation they represented, nor to achieve to themselves riches for contemplated enjoyments at any future day, nor, indeed, that kind of immortality which is preceded by the flattering praises of mankind. They had become almost fanatically imbued with a determination to Christianize the aborigines of California, and thereby demonstrate the power of Divine Truth and human kindness to accomplish that which the military power and avaricious grasp of a strong nation had *proven* to be "impracticable." To settle among, remodel and transform the habits of a race of beings who were but barely elevated above the organization of monkeys, to accustom these animals, so to speak, to traits of industry, to rational ideas of comfort, and above all to effect in their minds a conception of moral responsibility, were the leading and, we may say, absorbing objects of these Missionary settlers of California. They were therefore, politically unfit to develop and reveal to the parent government, and the world, the inherent wealth of the country they occupied. And, that we might the better sustain these opinion in the minds of our readers, we were careful to present in the beginning of our work a succinct view of the general wealth of the missionary stations, resulting from the labors of these excellent men. In these sketches there are indications of wealth which must arrest and surprise the mind of any one who peruses them. And whilst their details might have been overlooked if they had been given a different position, they have now in all probibility not only imparted a greater interest to the subsequent historical account of their rise and progress, but we trust, they have been so read and reflected upon as to insure a harmony of thoughts in regard to their national, political aud moral relations. But in order that the reader may be refreshed in respect to the resources of these Missions, we will present a tabulated recapitulation of the amount of property in their possession, so far as we have been enabled to obtain reliable estimates :—

RECAPITULATION OF THE PROPERTY OF THE MISSIONS.

Missions.	Year.	Head of Horses.	Mules.	Cattle.	Sheep.	Yokes of Oxen.	Hogs.	Amount in Mer'dize.	Money.
San Carmel,	1825	2000		92,000	50,000	370		$ 50,000	$ 40,000
San Louis Obispo,	1827	5500	3700	87,000	72,000				100,000
San Juan Capistrano,									
Santa Clara,	1823	6125	725	76,680	82,540	407	1000	120,000	
San Juan Bautista,	1820	6230		43,870	70,000	325		75,000	20,000
San Jose,	1825	2000	400	60,000	35,000	400			
San Fernando,	1826	3500	200	50,000	60,000	300	2500	40,000	100,000
San Louis Rey,									
San Gabriel,	1829	4000	350	75,000	54,000	150			
San Antonio de Padua,,									
Dolores,	1825	2585	700	60,000	100,000	400	10,000	28,000	19,000
San Buenaventura,	1825	3000	400	36,000	25,000	200		30,000	80,000
Santa Barbara,	1828	3000	6000	40,000	22,000	90			
Soledad,	1826			34,000	75,000	250			
La Purissimo Conception,	1830	7000		45,000	30,000	380			
Santa Cruz,									
San Migual,	1822	4200		95,000	50,000	2000			
San Antonio,	1820	5000	550	50,000	51,000	400	1000		
San Diego,									
Santa Inez,	1823	Esti	mated	amount of	Property,	$700,	000		
Amount,		54,140	13,025	844,550	776,540	5672	14,500	$343,000	$359,000

Such were the immense resources in the possession of these Missionaries; such were the national, missionary and individual facilities for revealing the claims of California to the world. And yet, with this means of opening commerce, of conciliating immigration and settlements in the territory, we find that there was not a sufficient degree of enterprize and policy, either upon the part of the Government or Missions themselves, to arrest a tide of retrogression and decay, which has finally forced the nation, Missionaries and all, into an abandonment of their possessions, or into a life-giving affiliation with their successors, the descendants of Jamestown and Plymouth.

In 1534 Grijalva, commanding a squadron fitted out by Cortez, discovered and took possession of California. From that period continual efforts were made to extend the discovery by the same authorities, and in the year 1596, under the patronage of one of the viceroys of New Spain, Don Sebastian Viscayno made an effort to permanently settle California. He made an extensive survey of the coast, and regularly established a garrison at Santa Cruz. Three hundred and twenty years ago, the country was discovered under the patronage of a man with almost unlimited resources, and by a people who were under the impression that it was the greatest storehouse of gold, of pearls and precious stones, that could be found in the universe. Discovered, not by a people who had no previously established political and commercial relations with the country, but by a Spanish nation, whose neighborhood contact and convenient sea ports, evolved an almost political necessity that it should be occupied, improved and retained by them. And when, in addition to this, we contemplate the fact, that the country was so very accessable, that there were so few losses sustained from maritime disaster during all the efforts made to explore the coast and territory, that the climate was so much more favorable than that characterized by the severe winters of the Atlantic borders, that the natives were comparatively harmless, then we would not be regarded as unreasonable or illiberal, in supposing that 320 years was time sufficient to present California as an improved and populous possession of Mexico, or some other Spanish Government. But we have ample reason for believing, that neither the famous Cortez, the ambitious viceroys of New or Old Spain, that neither the Jesuitical Fraternity of Mexico, the Franciscan Friars, nor the Dominican Monks, were the agencies through which a country like California was to be speedily or adequately developed. The evidence for a deduction unfavorable to the Spanish authorities, who made so many efforts to settle and improve the country, is to be found in the previously narrated results of 320 years struggle. And although we have given but a sketch of the most important governmental and individual attempts, yet enough has been presented to sustain a conclusion most unfavorable to the national or commercial enterprize of the people who discovered and strove to settle one of the richest countries in the world.

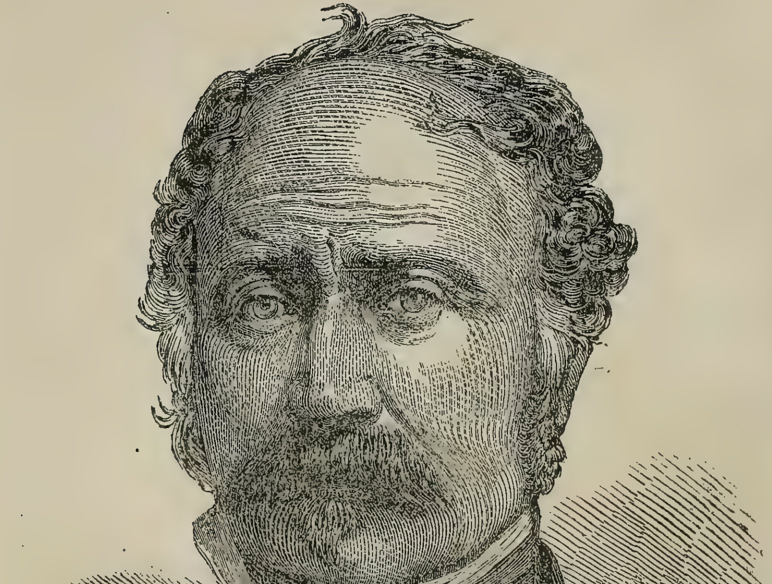
Suppose we were to institute a comparison between the efforts of the Spaniards to settle, subjugate and improve California, and the English who attempted the occupancy and development of the United States. In 1607, eleven years after the attempted settlement of Santa Cruz, the English Government made its first permanent effort to colonize America by settling Jamestown in Virginia. The vast continent of America was then almost completely in the hands of, or claimed by Spanish authorities. England had no contiguous possessions, no particular pretext for the immense territory she was almost grasping; she had less encouragement from climate, and much more troublesome and almost invincible aborigines to contend against.

And yet only look at the comparative results of the two settlements; of Santa Cruz, under Spanish patronage, and Jamestown, by English enterprize. In 258 years the one has led to an accumulation of old adobe walls, and the bleached bones of a few thousands of domesticated Indians, as the only remaining indications of the success attained for a season, and as the signs of a national lethargy that has slept away its own possessions. So much for the Spaniards and Santa Cruz. In 247 years the English settlement of Jamestown has grown into one of the mightiest nations that figures in the history of the world. From a little village of adventurers it has expanded itself into a confederation of THIRTY-ONE States, each one of which would sustain a respectable nationality among the kingdoms and empires of Europe. From this little nucleus of settlers has sprung up a population of 24,000,000 of people, whose moral habits, whose social and intellectual claims, whose physical endurance and political reputation is unsurpassed; whose enterprize has overridden all obstacles in its progress, and whose territorial possessions are nearly ten times as large as Great Britain and France combined; three times as large as the whole of France, Britain, Austria, Prussia, Spain, Portugal, Belgium, Holland and Denmark, together.

Such are the results of the two national efforts referred to: the Santa Cruz and Jamestown settlements. The one sustained by an immense patronage, by geographical contiguity, by climatic advantages and the feeblest savage resistance. The other, supported by limited resources, by an inextinguishable energy and fearlessness, and antagonized by remoteness from the source of patronage, by the most inhospitable winters, and by powerful and treacherous tribes of Indians. The one dead and decaying in its own birthplace; the other, in comparative exile, rearing monuments of vitality, enterprize and glory, over its grave.

Such a system of comparison, which is just in facts and figures, affords the easiest and most convincing method of reflection and inference, that can be adopted in the consideration of history. It holds up the irrefragable signs of the past; and whether they appear as the defaced and disfigured gravestones of perverted and futile enterprizes, whether as the crumbling and dingy walls of an abandoned and depopulated country, whether as the historic record of a blighted nation, or circumscribed and finally ruined Missionary schemes, or whether they loom up as cherished and towering symbols of national prosperity and grandeur, and as the fadeless annals of a moral and political superiority, still do they afford the only perfect key to the interpretation of national or individual character.

And this is the light of interpretation with which we would translate the efforts of Mexican authorities and Spanish individuals, to explore, settle and civilize one of the richest and most valuable territories in the world—Northern and Southern California. And whilst we regret the necessity, yet we cannot avoid the conclusion, that Mexico, with great natural advantages and extensive political resources, was totally and almost contemptably incompetent to achieve a permanent or even important settlement in the country. That the noble, and almost divinely animated Missionaries, who resolutely battled their way through accumulative difficulties to a glorious, yet limited success, that these, too, lacked the elements of an enlarged, an expanding, a general, elevating and enduring progress which lights up the pathway of Anglo Saxon energy and volition.



MAJOR GENERAL JOHN A. SUTTER.

HISTORY OF SACRAMENTO VALLEY.

CHAPTER V.

Having presented our readers with a somewhat cursory glance at the Missions of California, we now invite their attention to a more specific consideration of Sacramento Valley, as a subject of history, and a proper medium of interesting biographical references.

We do not intend to conduct the mind back to any remote period of exploration, in which traditional assistance and imaginary results are to be chiefly relied upon, to attest visitation and discovery. It will suit our purpose, if, when we commence our description of the Valley, we are sustained by living witnesses, and the unmistakeable indices of absolute investigation, and permanent settlement. Hence we shall incorporate our reminiscenes with the nineteenth century, and date our record on the 1st day of April, 1838, not as the absolute period of exploration, by the party to whom we shall refer, but as the time at which that individual left his home in a distant State, with the intention of settling in Sacramento Valley.

On the day above mentioned, Captain John A. Sutter left Missouri, where he had resided for many years, with the purpose of visiting, and permanently locating his interests in California. And he being the person to whom we have already alluded, the man whom destiny had reserved for the effective exploration of the Sacramento river, whose enterprise was to be the channel through which the great gold discovery was to be made, we shall take the liberty of introducing a few of the prominent incidents of his expedition, as he narrates them to us.

Capt. Sutter had sought with great interest, for all kinds of information respecting the Pacific Coast, and especially for any direct intelligence of California and Oregon; the former country having become a great source of attraction to him, on account of its geographical relations, and the general reputation it bore for mildness of climate and productiveness of soil. He became convinced that no country could offer finer inducements for settlement, to an individual that would appropriate himself to the inconveniences and dangers of a pioneer life. Hence his resolution, and first step towards emigration, on the 1st of April, '38. He left Missouri in company with a party of men, under the charge of Capt. Tripps, of the American Fur Company, and continued with them to their rendezvous, "Wind River Valley," in the Rocky Mountains. From this point he joined a party of six men, with the intention of going directly to California, but falling in with information, that the contemplated route would be crowded with dangers, he determined to alter his course, and first visit Oregon. He passed the different trading posts of the Hudson's Bay Company, gathering from the Trappers in his line of travel, a vast amount of information that tended to confirm his previous convictions of the country which he had selected as his future home. After having encountered aggravating delays, at the rendezvous of the American Company referred to, through the difficulty of inducing men to accompany him, and after having changed his course from a California to an Oregon trail, he moved on without interruption, and arrived in good time and health, at the Dallston Mission, on the Pacific side of the Sierra Nevada.

From this point he passed on with great rapidity, making the distance from thence, to the Willamet Valley, in seven days, the same being ten days less than the average time for making the trip, and that too without a guide. Here his men deserted him, but without affecting his determinations in respect to California.

At Fort Van Couver, he was treated with the warmest hospitality, and urged to spend the winter with the gentlemen of the Hudson's Bay Company. He had, however, started with a determination to reach California as soon as possible, and he could not think of perpetrating so great a delay. And as a vessel, belonging to the Company, was about sailing for the Sandwich Islands, he immediately concluded to embark upon her, hoping that from thence he would meet a quicker opportunity to sail for California. But in this he was greviously disappointed. He succeeded in getting to the Islands, and in organizing a new company of colonists, but he did not find any vessel sailing for California, direct, and after a tedious and horrible delay and impatience, he took passage in a vessel, destined to the Russian American Colonies, located at Sitka, on the north-west coast. At this place he was detained one month, during which time he assisted in discharging the cargo of the brig Clementine, which vessel was put in his charge for a coast voyage to San Francisco. During the passage down the coast he sustained various injuries from the severe gales prevailing at the time. On the 2d of July, 1839, the brig made its entry into the port of San Francisco. Immediately upon their arrival, an officer accompanied with fifteen soldiers came on board, and ordered him to leave the place, informing him that Monterey was the port of entry.—Upon the Captain's assurance, however, that they were in a state of distress, and only required a little time for repairs and to procure supplies, he had forty-eight hours granted him for such purposes. At the expiration of the allotted time, they set sail again for Monterey, at which port the vessel was entered according to Custom House requirements, and the Captain given a full and unrestrained opportunity to submit his plans and wishes to Gov. Alvarado. He told the Governor that he had come to California, with the full determination of making it his future home; that he had for many years heard, with great interest, the somewhat indefinite accounts of the country, and that he had after many discouraging delays, finally reached the land of his selection, more strongly confirmed in his previously cherished impressions of the opportunity which California afforded to settlers. This assurance was most abundantly sustained, by the attendant presence of five white men, three of whom were mechanics, and eight Kanakas, two of which were married. He also added that his desire was to proceed to the Valley of the Sacramento River, on the banks of which he wished to select a site for his future residence. This unexpected visit, the purposes assigned, and the means of accomplishing the objects stated, were well calculated to secure him a warm and liberal welcome from Gov. Alvarado. Of all surprises, perhaps none could have been more delightful and unexpected than this arrival of Capt. Sutter and his men. The more especially, as he disclosed his desire to locate somewhere in the Sacramento Valley. The Indians in this neighborhood were not only generally hostile to all white men, but they had a particular aversion to the Spaniards, and would not allow them to make settlements among them.—Hence the readiness of Gov. Alvarado, to welcome the new immigrants, and to encourage the carrying out of their design to locate in the forementioned Valley. He gave them the fullest permission to explore the river and its tributaries, and whenever and wherever the old Captain found a location to please him, to enter upon and take possession of it, with the assurance that at the expiration of one year after he commenced his settlement, he should be given a citizenship and title to the lands he had selected.

With such encouragement, he proceeded with the brig to Yerba Buana, or San Francisco again, and after discharging her sent her to the Sandwich Islands. This having been done, he made a purchase of several small boats, and chartered the schooner Isabella to assist him in a general exploration of the Sacramento River and its contributing branches. When embarked on board the schooner and launches, the expedition made quite an imposing start across the Bay, and in search of the entrance to the river in question. There was no delay encountered until he got to the point at which he expected to meet with the Mouth of the Sacramento, and yet it was eight days before he succeeded to find the outlet, or entrance to the stream. This was not a strange event, as it required a similar effort on the part of a number of U. S. Naval Officers, who subsequently attempted an ascent of the river without the services of a pilot. After making the entrance of the river, he sailed on without any difficulty or impediment, until he got within about ten miles of the present site of the City of Sacramento. At this juncture, he was arrested in his progress, by the sudden appearance of about two hundred Indians, who, being all armed and horribly painted, could very well afford to assume a hostile attitude, which they did not hesitate to do. Fortunately, however, the benevolent and conciliating face of the old Captain secured him an opportunity of manifesting his peaceful designs, in doing which he discovered that two of the Indians had a slight knowledge of the Spanish language. This gave him an advantage which he improved so well as to effect an agreeable treaty with them, and the two speaking a little Spanish accompanied the expedition up the river. From these two Indians he got much valuable information in respect to the face of the country, extent of valley, and the character of the Indians generally. He continued up the Sacramento until he arrived at the mouth of the Feather. The Indians above the point at which the treaty had been made, seemed afraid of the explorers, and generally hid in the bushes whenever approached by them. While prosecuting his survey up the Feather River in small boats, he saw a number of Indians, but they uniformly ran away when they saw the expeditionists.

After having gone up this river for some distance, the Captain again returned to the large crafts which were anchored in the main stream, and there found a condition of things existing among his men, which he had not anticipated, and which compelled him, most reluctantly, to abandon any further attempt at exploration up these streams. His men had become tired of a scheme which entailed upon them so much delay, and evinced their disaffection in a manner that he was compelled to respect. They demanded at once to know "how much longer he intended to drag them along into such a useless and miserable wilderness?" Assuring him that they had decided upon a course which would put an end to what they regarded as a humbug, they left him but a small margin for compromise. Not being willing to jeopardize the entire objects of colonizing in the valley at some point, and being unwilling to trust his self-control under such a pressure of excitement and indignation as this mutinizing spirit had enkindled, he simply told them that he would give them a decisive answer in the morning, and retired for reflection into the cabin of the schooner.

The next morning the old Captain met his men with an assumed air of cheerfulness, and instead of entering into any conference with them, he gave orders to prepare for descending the Sacramento again. This order was most congenial to the wishes of his men, and, of course, quickly responded to.

He descended this river until he came to the mouth of the American which he entered on the 12th of August, 1839. He ascended this branch of the Sacramento a few miles, and ordered the men to moor the boats alongside the banks, and to discharge the cargoes. This being done, he ordered the tents to be pitched and the three cannons mounted as a means of defence and intimidation, should the Indians show any disposition to molest them.

This being done according to his request, he then felt an independence which enabled him to settle with the spirit of rebellion that had interrupted his explorations of Feather River. Calling the white men to him, he told them that now he would give them an opportunity of deciding a very important question;—to determine at once, and emphatically, whether they intended to remain with him agreeable to contract, or to leave him; assuring them that he asked no man to remain who could not do so cheerfully, and that those who were not contented to stay with him and his Kanakas, he would settle with at once, and allow them to return the next morning in the Isabella.

This was a terrible crisis in the early adventure of the old Pioneer. In the midst of numerous tribes of Indians who he knew were hostile and warlike, who were bitterly prejudiced against the approaches of white men; remote from any settlement that would afford him refuge in an emergency; with somewhat limited supplies, and no persons to rely upon but these six men and his Kanakas, he had a right to regard the moment of decision referred to as of perilous importance. His impatience with grumbling faces and capricious spirits made him loathe a companionship that was not at once open, manly and resolute. He had, of course, relied upon his contract with them, and, in consequence, had placed himself in a situation in which it was more than probable that his life would be forfeited, yet he would not have men about him who, under such circumstances, could evince a feeling of disaffection or treachery. If they abandoned him at such a time they would not, nor could not, drive him from the purpose which he had pledged himself to Gov. Alvarado to carry out. He came to California to settle in and develope the valley of the Sacramento, and no principle of abandonment, no feeling of loneliness, nor consideration of danger could paralyze or stagger his determination for a single moment. In this state of mind he waited the verdict of a jury of six discontented and unreasonable men.

The verdict was announced, and it was so much better than he had anticipated that he felt an unutterable thrill of pleasure light up his whole moral frame work. THREE had determined inflexibly to abide by their old guide and protector, and THREE of the number concluded to *return* in the Isabella. Three such men he could afford to lose, and accordingly settled with them, paid them their dues, and *gave* them a passage to San Francisco.

The next morning the chartered schooner was got in readiness for her final return, and, with the faint-hearted trio of adventurers, set sail for "Yerba Buena." Thus were the first real SETTLERS of Sacramento Valley left alone, amidst the dangers of an almost unparalleled exile, in the centre of an inhospitable desert, which was infested with wild beasts and savage Indians. Thus were they called upon to meet a crisis in which companions faltered and returned, and in which they could see and feel that in the receding form of the "Isabella" they were losing every chance of safety, save in their own mutual and unchangeable regard and integrity. With an involuntary loathing they turned from watching the departure of their three unfaithful and unabiding associates, to a calm yet cheerful contemplation of the great experiment they were about to commence. They had tents, farming implements, provisions and mechanical appliances; powder, guns and three cannons, which, though in limited number and quantity, were, nevertheless, a source of infinite reliance and comfort to them in this the most trying juncture of a noble yet perilous adventure. That the scene, however, must have been a dismal one, to anything but an inflexible and brave mind, can be easily imagined, especially by parties who have witnessed the barren and dried up appearance of these plains at such a season of the year, and before they had been subjected to cultivation. But the circumstances by which they were now surrounded, the almost impossibility of retreat, if assailed and dislodged by the savages, the absolute requirement to labor for support, and to exercise vigilance for protection, gave inspiration to a heroism, energy and mutual fidelity that insured them success. The immense plains, which, by the promise of the Governor, became theirs through possession, they looked upon as an adequate prospective reward for the dangers they had voluntarily incurred. The only doubt that crossed their minds in reference to their ultimate success in subduing and improving the country, arose from the many Indians around them who manifested anything but a friendly and honest intention. There was something peculiarly attractive to the Indians in the personal property of the colonists, and as they could not appreciate reasoning which assigned it by a mere moral right of ownership to the new comers, they commenced almost immediately to make it the subject of plunder. The colonists were, therefore, put to the necessity at once of placing themselves in an attitude of opposition to the natives. The Indians, finding themselves out-witted in their cunning, became sufficiently emboldened to try a forcible appropriation of the coveted property. But a few experiments in gunpowder and the three cannons, convinced them that however much superior they might be numerically, that yet in any form of open warfare, the colonists had a fatal and mysterious advantage—which they might better conciliate than oppose. Acting in response to such a conclusion they assumed a much more friendly appearance, and seemed disposed to be regarded and treated as friends. Their intercourse was at once distinguished by acts of kindness, by freedom of communications, and even by manifesting an interest in sharing some of the toils and hardships of the colonists. By this conduct they acquired the confidence of the Captain and his associates, and lulled them into a conviction of security which came near fixing their fate forever. Indeed nothing rescued them from a wily and malignant plot of assassination, but the superior instinct and vigilance of an immense bull dog belonging to the Captain, and whose claims as an integral and fortunate portion of the colony have been almost criminally overlooked.

A few of the most daring Indians had determined as soon as they discovered a sufficient lack of caution on the part of the whites, to steal upon them in the night with such a force as to enable them to murder the entire company at a single blow. In the day time they were around the camp exhibiting a kindness, a familiarity, and a general friendliness, which was rapidly conciliating the good will of the colonists, and, for the time being, overruled the suspicions of the faithful bull dog. So well did they perform their part in the maturing conspiracy that the Captain and his friends began to welcome night and sleep without the disagreeable necessity of a constant sentinelship. This was recognized with a sort of savage congeniality by the villainous conspirators. They watched its progress with the eagerness of fiends, and yet were never surprised into a betrayal of their own feelings. One precaution after another was abandoned, until little show of suspicion was evinced, and then the Indians prepared for the contemplated slaughter. Furnishing themselves with hunting knives, procured from the southern tribes in trade, they sallied out one night at an hour when all was silent and quiet in the camp of the colonists, and stealthfully crawled up towards the tents. All this far was most promising to their appetite for vengeance and plunder. Every one of the tired colonists were buried in sleep, while their approaching murderers had stolen, in perfect security, to within a few feet of the intended victims; and the ringleader, in advance of the rest, was about crawling into the mouth of the old Captain's tent. Fortunately for the unsuspecting adventurers, who were upon the very verge of an awful slaughter, there was a friendly sentinelship about them that never slept, whose instinct was the watchword of fidelity, and whose sense of danger could be aroused where stillness reigned. Thus was it with the noble old bull dog referred to. Close to his master's tent, concealed from view by the darkness of the night, he watched the movements of the murderous wretches, until he could stand their impudence no longer, and then selecting the boldest one, he pounced upon him without a bark or growl, and sinking his teeth into a protuberant angle of his body, he put the speediest possible end to the conspiracy. The air was instantly filled with the piteous yells of the ringleader, whose misery and torment, and the cause thereof, the accomplices did not stop to investigate. The camp was, of course, aroused, and whoever has observed, or experienced the power of a bull dog's grip, can appreciate the difficulty of the Indian attempting his escape. Instinct which in this case was a sort of *Aposteriori* argument, induced the villian to throw away his intended instrument of destruction and assuming a less criminal intent, get some of the Captain's men to choke off the dog. In this he succeeded so well as to escape the punishment due him, and twice afterwards were similar stratagems concocted and each time defeated through the sagacity of this noble animal. The nature of the conspiracies were revealed to the Captain subsequently by his civilized and educated Indians.

Before Captain Sutter came up the river he purchased a number of horses and cattle from the Rancho of Senor Martinez. But it was with great difficulty that he succeeded in getting his stock up to his station. The Indians were so troublesome that he had to detail almost the whole of his force from the camp, and then they could but barely accomplish the undertaking. They did, however, finally get to their new home about five hundred head of cattle, fifty horses, and a "manada" of twenty-five mares.

Prior to the arrival of the stock they subsisted principally upon game, elk, deer, bears, etc., which existed in great abundance, and which probably constituted the principal subsistence of Captain Joseph Walker in the year 1833.*

After the Captain had got his stock together, and after he had succeeded in getting the natives to render him some assistance, he began to lay out different and more substantial plans for the future. The site first selected he did not feel satisfied with, and accordingly changed his location from the bank of the American up to the present location of the Old Fort. With the Indians and his own men he soon made enough adobes to build one good sized house and two small ones within the grounds afterwards enclosed by the walls of the Fort. His Kanakas built themselves three grass houses, such as they were in the habit of living in at the Sandwich Islands. These houses, which were subsequently burned, afforded them very comfortable quarters during their first rainy season, or winter.

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* In the year 1831 Capt. Joseph Walker, with a company of trappers, left St. Louis, and after trafficking and trapping for nearly two years along the way, succeeded in crossing the Sierra Nevada mountains, in 1833, and wintered in the Sacramento Valley. The pass now known as "Walker's Pass" is the one then discovered by the Captain and his party.

At the same time that he was prosecuting these important and very commendable improvements at the Fort, he was also employing a number of his friendly Indians in opening a road direct to the Sacramento, where it was intersected by the American. After completing this road of communication, which required a vast deal of labor on account of the almost impenetrable chapparel through which the road had to be cut, he named his landing place upon the main river, his "Embarcadora," now the City of Sacramento.

As yet the Captain had no opportunity of knowing anything about the soil of the valley, except from the account given by trappers and Indians, and from its appearance when freshly turned with the spade or shovel. Yet he was fully convinced of its richness and adaptation to the raising of grains and vegetables, and consequently made the best possible arrangements for opening the ground in the coming spring. His Indians were becoming very useful, and with the setting in of the spring season he commenced to break ground for a crop of wheat, and also to prepare a garden for the cultivation of vegetables. The old Captain assures us that no man ever felt a greater glow of pleasure than he experienced, when, for the first time, he commenced to break up the green-sward of Sacramento Valley as a practical farmer. To him it seemed almost a dream. Contempleting his situation in the midst of a vast wilderness; in a territory as yet almost unknown in its real character, surrounded by Indians whom he had succeeded in a few months to transform into the most useful laborers, establishing a nucleus of what his prophetic vision represented as an immense centre of wealth, we wonder not that his benovolent heart vibrated with the intensest emotions of pleasure and satisfaction. Rather should we be surprised were he to affirm the contrary. But this was only the beginning of an infinite source of incidents, of an interminable series of events through which, by his kindness, we will hereafter conduct those of our readers who will honor and oblige us with their company.

TO OUR PATRONS.

In presenting the first number of our work to the public, we desire to say, that we have been induced to undertake the task from a higher motive than mere pecuniary requitement. We have observed that even a few years can do much towards effacing the record of those exciting and quickly-passing events that followed the gold digging developments of our country. Already a vast amount of history has been concocted and labelled California, which, to the people of the State can only be regarded as the products of hearsay testimony.

For example we will quote a description of Sacramento from "Frost's Pictorial History of California."

"*Where* the City of Sacramento *now* stands, at the time of the gold discovery, *there stood*, solitary and alone, a *small fort*. This formed the nucleus, about which, at the commencement of the rush of emigration, the town soon sprang into existence. Its increase has been almost as rapid as that of San Francisco. During the rainy season of the early part of 1850, the population numbered somewhere between *twenty* and *thirty* thousand people." Again, in speaking of "Sutterville," he says that "It is situated on the highest and *healthiest* ground on the river." and that it has a *thriving business* population. But to cap the climax of error, on the page opposite the quotation from Sacramento, is a pictorial representation of the Town of Sacramento, *two* miles from the *small fort!* exhibiting some fifty buildings, and yet advancing the age of the town nearly to the period of its containing between 20,000 and 30,000 inhabitants, by the introduction of a large sidewheel steamboat, probably the "Senator," which did not arrive until October, '49.

Such errors, even in the geography of the country, can only be corrected by those who, knowing to the contrary, will take some pains to counteract the inaccuracies.

In the history of Sacramento Valley and the City of Sacramento, we feel confident we can collate and present a great deal that will not only be true and interesting, but of great service in the more general and comprehensive history of California.

By publishing the work in numbers we can pay better attention to the mechanical execution of it, and associate it with a general summary which can be very conveniently detached from the work when the whole is complete and ready for binding.

We have received promises of data from many sources, and have the pleasure of acknowledging the kindest assistance from Capt. John A. Sutter, Mr. Ford, Samuel Brannan, Judge Burnet, Alta California, Placer Times and Transcript, Joseph Winans, Esq., Mr. Myzner, Roland Gelston, Col. Zabriskie, P. B. Cornwall, W. R. Grimshaw, and C. S. Pickett. Ere we commence upon our sketch of the City we hope we shall receive still more from the same and other parties.

MISCELLANEOUS REFLECTIONS.

A moralist would not be driven into an inactivity in California, simply because his reflections are often pained with disagreeable and depraved exhibitions of moral character. California is not altogether barren of moral and social progress. There are, indeed, most pleasing signs of improvement, which, though not so obtrusive and turbulent in their inception, are nevertheless powerful in their influence. Truth and virtue are elements of divinity, that operate with such silent and modest grace, as to sometimes almost escape observation.

The great mass of human beings seldom recognize the true condition of moral and social advancement, until some great demonstrative result or striving aggregate of improvement arrests their attention. A few there are, whose elevated tastes and honorable habits lead them, not merely to watch in detail the onward progress of moral and social improvement, but who are ever zealously and gloriously employed in endeavours to increase the tone and fervor of the spirit of reformation and refinement. They think and act, preach and practice; and they can be recognized as the moving spirits or active agencies of a great variety of moral and social organizations. Now they are engaged in forming religious associations, and in a very short time in California, they are observed in the act of rearing upon these, their first efforts, a splendid and effective system of church organizations. And then there is another redeeming nucleus of men, who are imbued with such prominent elements of benevolence, whose feelings are so freighted with fraternal sympathies, that they are also actively, and we might almost say constantly engaged in organizing charitable associations, and vitalizing them with potent activity in the divine science of doing good.

And when we contemplate such men and their noble works, we can rejoice that even in California there are encouraging signs of moral and social improvements. In the organization of churches, their increasing number and influence, in the rapid multiplication of benevolent institutions, in the formation of temperance societies, and in the obvious expurgation of impurities in social life, there is enough to justify congratulation upon the past, and to encourage a pleasurable degree of expectation for the future.

But, as there is no country in the world, in which vice does not exist, we in California, can only expect to become notorious from either an excess or a deficiency of it, and from present appearance there can be little doubt as to which source of distinction we will be compelled to choose. For, notwithstanding the indications of improvement to which we have referred, there perhaps never was a time when vice in California was so ably sustained by art and science as at the present day.

First and miserably wrong, is the science of legislation, (if that can be called a science, which is so made up of art,) pandering to the development of vice, by unwise laws, such for example as a loosely constructed law of divorcement. A law which is inundating California with a species of harlotanism and masculine depravity, worse and more despicable than an unmasked form of prostitution. A law which is crowding the court rooms of our country with men and women, making or endeavoring to make a virtue of some painfully recorded category of domestic rows; in which, peradventure, some little children have been knocked down or kicked against a wall, (if from extraordinary causes such a delay of application for divorce has made room for the household elements alluded to,) or, perchance scratched faces have been recognized, or hair pulled out instead of being cut off. In short, a thousand disgusting manifestations of human weakness, which, if occurring in any individual worthy of the right of matrimony, would be as faithfully concealed as if life itself depended upon keeping the world ignorant of their existence.

But then, even with the leeway which such a law affords, in the hands of a just court, it need not be a source of vice. It is but a short time since we read a decision of our own District Judge, who, in one of many of the applications being made, declined to grant the prayer of the parties, upon grounds that were probably stronger than many in which bills in other counties have been secured. This shows that the law may be bad, and yet in the hands of a just and reasonable man, it may be made harmless.

But then again, in cases in which legislation is perhaps perfect, there may be, aye there is, something unutterably wrong in the execution of the law. As an illustration of this, we will refer very briefly to the recent trial of the

"PEOPLE vs. GATES."—In the sentence of the Judge, which is clear, succinct, and, from necessity severe, we find the following:—"Before the law, however, all are equal, and I must not permit or suffer my previous acquaintance, or your previous position, to influence me in the judgment I am now called upon to declare. That you were not convicted of the higher crime, that of murder, I attribute CHIEFLY to the children who testified in your favor upon the trial,—there was so much apparent truth in their statements, their cross-examinations was so consistent with their examination in chief, that it gave great weight to what they swore to. There was one fact, however, the most important FACT of all, that little Laura swore to, which, at the time, I was unable to explain or reconcile, nor have I been able to do so since. I presume it escaped the attention of the jury, as their attention was not directly called to it. Laura testified that when the quarrel between you and her father (the deceased) commenced, she and her mother (Mrs. Harrold) left the kitchen, Mrs. Harrold going into an adjoining room, and Laura going out into the yard, to look after her little brother John, and when about 30 or 50 yards from the house (for John testified he was about 40 or 50 yards from the house she swore she heard the deceased say "G–d d–n you, you have got to die to-night." It was an important piece of testimony in your favor; it was heard by the little girl out in the open air, distant some 30 or 50 yards from the house, and yet Mrs. Harrold, who WAS IN AN ADJOINING ROOM, with but a thin partition intervening, and who, upon the trial, SHOWED NO RELUCTANCE to testify in your favor, never HEARD one WORD of it." In connection with this we will quote from the testimony of Mr. James Henshaw, whom

Mr. Gates first called upon to assist him after the man was killed. He says in the middle of his testimony, which referred to a neighboring house, "Gates then left, and I went to the house; no light there when I went in; got in; took hold of the left hand of the deceased and said "John, can you speak;" but there was no breath in him; can't say how long I was in there; Gates first came in; I was looking at VICTUALS in the mouth of deceased; Gates took the candle, BLEW out the light and said, "we must put him to bed; I don't want Mrs. H. to see him;" I answered that he must remain where he was until some one came from the city to see him; this was repeated; he then stooped to get hold of his right arm; I resisted the third time; he said "yes, get him to bed;" Mrs. H. was outside and said, "let him remain there;" Gates took hold of him as if to drag him; I assisted to draw him on a mattrass; noticed a wound on right side of his head; a chair was standing at and a cup and saucer on the table; deceased fell SIDEWAYS on the floor, with his legs crooked around the front of the chair; his MOUTH was open and FULL of victuals UNMASTICATED. In the cross-examination he answers: "when he (Gates) spoke to me about putting deceased to bed, he spoke sharply, in a doggish manner, twitched the candle out of my hands and blew it out.

Nor all the material points of the testimony of Henshaw, were not only abundantly sustained by the irreconcilable testimony to which the Judge alluded, and the general character of the witness, but had the prosecution pleased, they could have brought forth the positive testimony of two unimpeachable medical gentlemen, who were employed by the State to examine the body, after it had been exhumed, and must have established the truthfulness of the statement, in regard to the unmasticated food in the mouth of the man killed. Not only this, the physicians, subsequent to the autopsey, said that the food consisted of a piece of unchewed beef-steak, not of the size which could be conveniently turned to one side for the distinct articulation of "G—d d—n you, you have got to die to-night," but near, or about the size of an English walnut. Nor was it beef-steak once swallowed and rejected by a convulsive act of the stomach. As it was taken into the mouth in a state of health, so was it found there in indestructable attestation of an unexpected and instant death, which resulted from a ball entering a little from the *centre* of the *back* of the *head*, piercing the skull and tearing its way through the anterio-posterior diameter of the brain, and lodging upon the orbital ridge of the left eye. Now, we care not whether a conclusion be asked from the general circumstances, associated with the conflicting statement worrying the mind of the Judge, or associated with the single fact of the unmasticated food in the mouth of deceased, or with the single fact of the ball entering the back of the head, or with the single fact of his falling upon his side, with his "legs crooked around the front of a chair," which chair stood at the table; still in either case, the inference is almost irresistibly on the side of a deliberate and premeditated murder; and when all the testimony is embraced in the consideration, it is, we believe, one of the strongest cases of guilt that ever went upon a criminal calendar. But he has been tried by a jury of his countrymen, and returned as guilty of manslaughter, with a recommendation to the mercy of the court. The punishment prescribed by law in the premises, is two years' imprisonment and a fine of $100. The punishment of a divine law will be a quiet mind, if popular opinion be wrong, or a tortured conscience if its conjectures, or rather its fixed conclusions be correct and just. Such an illustration sustains the position which led to it. If such be the manner of administering the laws of California, then the mere fact of having good laws, is no probable guaranty of moral honesty or personal security.

But, to change the subject, and introduce a more agreeable one, let us rejoice in the presence of our new (*old*) and welcomed guest, the Capital. Well, who would have thought a few months ago, that the people of Sacramento, including Whigs and Bolters, (cousins by contingency,) would be found so eager to open the doors of their special hospitality to "Gov. John Bigler and his immense family of partizan cormorants, who had not only plunged the State into irretrievable bankruptcy, but who had absolutely eaten, digested, assimilated and been made strong by "water lot extension," "stamp act statutes," State printing obligations," and worse than all "State's prison contracts." "*O, tempora, O, mores!* How to reconcile it we know not, except by another quite reasonable maxim "*quantum mutatus ab illo*," how changed from what he once was; or per chance "*Omnia vincit amor*," LOVE conquers all things.

THE CAPITOL.

But we started with a felicitating expression in respect to the fact of the Capital being now at Sacramento, and we regret a digression that has somewhat disturbed our *specific* gravity. It is philosophically, morally, socially, and, by all natural and artificial considerations, where the Capital of the State ought to be, and if its permanent adjustment requires that Mr. Broderick should be sent to the U. S. Senate in view of a regular bargain having been made to that effect, why then, with due respect to Mr. Park, and our own proper dignity, we would exclaim, in the classic sentiment of the day, "pitch in;" or else, in the language of a defunct aphorism, do, for gracious sake, "dry up."

MONTHLY SUMMARY OF EVENTS.

Feb. 1st.—Celebrated by the Fire Department of Sacramento, it being the occasion of Protection Engine Co. No. 2 receiving a new engine; attended the Sacramento Theatre in the evening.

Feb. 2d.—Steamer Brother Jonathan arrived, bringing intelligence that the interest on the 7 per cent. bonds, in New York, falling due on the 1st January, were not paid; also of the purchase, by the United States, of Lower California and Sonora, for $50,000,000; Prussia had declared war against Turkey; Madame Anna Bishop and the celebrated Bochsa arrived.

Feb. 3d.—A Lyceum was established at Grass Valley; Patrick Ferris killed at Sacramento by William Peters, who stands indicted for murder.

Feb. 4th.—Extensive deposits of gold discovered near Forman's Ranch, on the South Calaveras.

Feb. 6th.—Oregon arrived, announcing Lord Palmerston's restoration to the ministry; Passage from Sacramento to San Francisco, 50 cents.

Feb. 7th.—Democratic members of the Senate and Assembly met in Caucus, to decide upon the election of a U. S. Sentor this session; great diversity of opinion on the subject.

Feb. 8th.—The following persons empannelled as Grand Jurors of Sacramento County, February Term: Benj. Southwick, Jefferson Wilcoxson, J. W. McDonald, John S. Fowler, T. Wand, Chas. H. Shaw, Saml. Colville, Jesse S. Hambleton, Geo. B. Bidleman, R. D. Denton, Wm. A. McWilliams, W. B. Crawford, Daniel Quivey, D. Murray, W. Jordon, John Woods, J. E. Perkins, G. W. Holstead, S. B. Freeland, J. R. Gould, Josiah Johnson, Mathew Purden, E. M. Vancleck; clipper ship San Francisco wrecked—loss estimated at $400,000.

Feb. 9.—Thomas Francis Meagher lectured at Grass Valley.

Feb. 10.—A company of three men (Short & Co.) at Algerine Camp, near Sonora, took out 95 ounces of gold.

Feb. 11.—The miners of El Dorado Co. held a mass meeting at Diamond Springs, at which measures were adopted for the promotion of their general interest.

Feb. 13.—The citizens of Sacramento gave Mr. Joseph Proctor and lady a complimentary benefit prior to their departure to the East.

Feb. 14.—From the overflow of the Calaveras the road between Sacramento and Stockton was made impassable.

Feb. 15.—Gen. John E. Wool, U.S.A., and Hon. H. S. Foote, arrived by the steamer John L. Stephens.

Feb. 16.—The California Conference of the M. E. Church convened at Sacramento, Bishop Simpson presiding; the steamers California and Brother Jonathan sailed from San Francisco, taking in treasure $2,087,452.

Feb. 17.—The Senate passed Mr. Catlin's bill for removing the seat of Government to Sacramento.

Feb. 18—The San Francisco Herald reports an increase of 1743 persons to the population of California, by two days arrivals at the Bay.

Feb. 20.—School Commissioners established the first Free School in Sacramento.

Feb. 21.—New diggings discovered in the region of Bear River.

Feb. 22.—The Fire Department of San Francisco received a benefit at the Metropolitan Theatre, when Mr. J. E. Murdoch, Mrs. Sinclair, Madam Thillon, Mr. Hudson, etc., volunteered their services gratuitously—proceeds, $4,565.

Feb. 23.—Sacramento R street Levee completed.

Feb. 24.—Stage communication between Sacramento and Grass Valley interrupted, on account of prevailing storms.

Feb. 25.—The Mayor of Sacramento authorized to issue additional bonds to the amount of $105,000; the Governor signed the bill for the removal of the seat of Government.

Feb. 27.—A mining party above the Main Bridge, says the *Columbia Gazette*, struck a vein, and were taking out twenty ounces per day.

Feb. 28.—State Officers arrived at Sacramento; Marysville decided by election to subscribe for $800,000 of stock in the Marysville and Benicia Railroad.

Mar. 1.—The Senate and Assembly organized in the Court House at Sacramento; at this place the Temperance Society have nominated a ticket to be supported at the ensuing city election; steamers Sierra Nevada and John L. Stephens sailed from San Francisco, taking treasure to the amount of $1,540,547.

Mar. 2.—A specimen was taken from the Bed Rock Tunnel at Smith's Diggings, weighing about four hundred pounds, and valued at from twelve to eighteen thousand dollars.

March 3—Report states that snow is twelve feet deep in Orion Valley, Sierra County.

March 4th.—Hebrew Benevolent Society of Sacramento reorganized.

March 6th.—Senatorial question postponed in the Senate and Assembly, until the 17th inst.

☞ We propose hereafter devoting a space in each issue of our work, to a review of the passing events on that "mimic world" the stage, also for the publication of original poetry, and in these departments have solicited the aid of acknowledged talent. Their contributions to this number are unavoidably crowded out for lack of space.

CORRECTION.

We desire in this number of our work to correct an error which was committed in our sketches of the City, previously published. In the account given us of the primary lot speculators in the City of Sacramento, the name of Gov. Burnett was included as one of the parties obtaining a large number of lots from John A. Sutter, Jr., as an inducement to settle in and develope the town. The relation of the gentleman to Mr. Sutter at the time, would have made the speculation one of great impropriety as well as morally and legally wrong; a condition which in our haste was overlooked, and the effect of which we sincerely regret. The Governor has exhibited us a statement of the matter, which exonorates him from any participation in the arrangement and which we shall use when we come to that part of our own work to which the subject refers.

SAMUEL BRANNAN'S
BANK,

N. E. Corner Montgomery and California Streets,

SAN FRANCISCO.

DEPOSITS SECURED
BY
$450,000
PRODUCTIVE REAL ESTATE
IN TRUST
FOR THEIR REDEMPTION.

TRUSTEES.

VOLNEY E. HOWARD, | SAMUEL J. HENSLEY,
ELI COOK.

BANKING HOURS.

The Bank will be open DAILY, (Sundays and Holidays excepted,) from 9 A. M. until 4 P. M. On every SATURDAY Evening from 7 to 9 o'clock, and on the Night previous to the sailing of the Steamers, from 7 until 11 o'clock.

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SAMUEL BRANNAN'S BANK.

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TRUSTEES.
VOLNEY E. HOWARD, | SAMUEL J. HENSLEY,
ELI COOK.

The undersigned has established in the City of San Francisco a BANK, under the above name, style and title. The object is to furnish a safe place of deposit to all classes of the community, especially to FARMERS, MINERS and MECHANICS. For the accomplishment of this object there has been conveyed to competent and reliable Trustees, PRODUCTIVE REAL ESTATE, amounting to not less than FOUR HUNDRED AND FIFTY THOUSAND DOLLARS.

CERTIFICATES OF DEPOSIT will be issued for any amount, from FIVE DOLLARS upwards, but no Certificate will be issued bearing interest for a less sum than One Hundred Dollars, nor for a shorter time than six months. The interest paid upon these Certificates will be at the rate of Three per cent. per annum.

ALL MONEYS WILL BE LOANED upon First Class Securities—but borrowers will be required to pay all the expenses of searching titles, drawing mortgages and other papers—the right reserved to the Bank to say who shall search the titles, draw the papers, and the manner in which they shall be drawn.

GOLD DUST will be received and deposited at the United States Mint, or any Assay Office, for assay, and the depositors of the same charged the usual market rates for so doing.

FOREIGN and DOMESTIC EXCHANGE purchased and forwarded, charging usual commissions in such cases, but no Exchange will be bought or forwarded without funds or ample satisfactory security in hand.

The following are copies of the Deeds of the property placed in the hands of the Trustees, and contain the provisions and conditions of the Trust.

SAMUEL BRANNAN.

Know all Men by these Presents: That

THIS INDENTURE, made and entered into by and between SAMUEL BRANNAN and ANN LISA BRANNAN, his wife, by Samuel Brannan, her attorney in fact, of the City and County of San Francisco, and State of California, parties of the first part and VOLNEY E. HOWARD, of the City and County of Sacramento; SAMUEL J. HENSLEY, and ELI COOK, of the City and County of San Francisco, and State of California, parties of the second part,

WITNESSETH, That the said parties of the first part, in consideration of One Dollar, and divers other good and valuable considerations hereinafter expressed, have bargained, granted, and conveyed, and by these presents do grant, bargain, and convey, unto the said parties of the second part, in trust, however, for the uses and purposes hereinafter expressed, the following described Lots, Tracts, and Parcels of Land and Real Estate, with the buildings and improvements thereon, lying and being situated in the City and County of San Francisco, and State of California, bounded and described as follows: To wit—That certain piece or parcel of land with the buildings and improvements thereon, commencing at the North East corner of Montgomery and Sacramento streets, thence running Northerly along the East line of Montgomery street sixty feet, thence at right angles Easterly sixty feet, thence Southerly at right angles to the last mentioned line sixty feet, thence Westerly along the Northerly line of Sacramento street sixty feet to the point of beginning.

Also that certain piece or parcel of land with all the buildings and improvements thereon, commencing at a point on the Easterly line of Montgomery street, twenty-two feet Southerly from the South East corner of Montgomery and Sacramento streets, thence running Southerly along said Easterly line of Montgomery street one hundred and fifteen feet six inches, thence Easterly and at right angles sixty-eight feet nine inches, thence Northerly and parallel to Montgomery street ninety-five feet six inches, thence Westerly at right angles eighteen feet, thence Northerly and parallel with Montgomery street twenty feet, thence Westerly and at right angles fifty feet nine inches o the point of beginning.

Also, that certain lot of land with all the buildings and improvements thereon, commencing at the North East corner of Montgomery and California streets, thence running northerly along the East line of Montgomery street, sixty-eight feet nine inches, thence Easterly at right angles sixty-two feet six inches, thence Southerly and parallel to Montgomery street sixty-eight feet nine inches, thence Westerly along the North line of California street, sixty-two feet six inches to the point of beginning.

Also, that certain lot of ground with all the buildings and improvements thereon, commencing at a point on the Easterly line of Montgomery street sixty-two feet six inches from the South Easterly corner of Sutter and Montgomery streets, thence running Southerly along said line of Montgomery street fifty feet, thence Easterly at right angles eighty-seven feet six inches thence Northerly and parallel to Montgomery street fifty feet, thence Westerly at right angles eighty-seven feet six inches to the point of beginning.

Also, that certain piece or parcel of land with all the buildings and improvements thereon, commencing at a point one hundred feet Easterly from the South Easterly corner of Mission and Second streets, on the Southerly line of Mission street, thence running southerly and parallel to Second street, one hundred feet, thence Westerly and parallel with Mission street one hundred feet, thence Northerly along the Easterly line of Second street one hundred feet, thence Easterly along the Southerly line of Mission street one hundred feet to the point of beginning.

Also, that piece or parcel of land with all the buildings and improvements thereon commencing at the North East corner of Bush and Sansome streets, thence running northerly along the East line of Sansome street one hundred and thirty-seven feet six inches, thence Easterly and parallel to Bush street one hundred and thirty seven feet six inches, thence Southerly and parallel to Sansome street one hundred and thirty-seven feet six inches, thence along the Northerly line of Bush street Westerly forty-four feet, thence Northerly and parallel with Sansome street, sixty-eight feet, thence Westerly and parallel to Bush street twenty-two feet six inches, thence Southerly and parallel to Sansome street, sixty-eight feet to the north line of Bush street, thence Westerly along said line seventy one feet to the point of beginning.

Also, that piece or parcel of land with all the buildings and improvements thereon, commencing on the South Westerly corner of Market and Fremont streets, Thence running Westerly along the south line of Market street one hundred and thirty-seven feet six inches, thence Southerly and at right angles one hundred and thirty-seven feet six inches, thence Easterly and parallel to Market street one hundred and thirty-seven feet six inches to the Westerly line of Fremont street, thence Northerly along said line, one hundred and thirty-seven feet six inches to the point of beginning.

Also, that certain piece or parcel of land with all the buildings and improvements thereon, commencing at the South Easterly corner of Market and Beale streets, Thence running Easterly along the south line of Market street forty-five feet ten inches, thence Southerly and parallel with Beale street one hundred and thirty-seven feet six inches, thence Westerly at right angles forty-five feet ten inches to the east line of Beale street, thence Northerly along said line one hundred and thirty-seven feet six inches to the point of beginning.

Also, that certain piece or parcel of land bounded and described as follows, commencing on the South Westerly corner of Drum and California streets, thence running Westerly along the south line of California street ninety-one feet eight inches, thence Southerly and at right angles one hundred and twenty-three feet six inches to the northerly line of Market street, thence along said line one hundred and thirteen feet eight inches, thence northerly along the Westerly line of Drum street fifty seven feet six inches to the point of beginning.

Also, that certain piece or parcel of land bounded and described as follows, commencing at the South Easterly corner of Market and Main streets, thence running Easterly along the South line of Market street forty-five feet ten inches, thence Southerly at right angles one hundred and thirty-seven feet six inches, thence Westerly and parallel to Market street forty-five feet ten inches to the Easterly line of Main street, thence Northerly along said line of Main street one hundred and thirty-seven feet six inches to the point of beginning.

Also, that certain piece or parcel of land with all the buildings and improvements thereon, commencing at the North Easterly corner of Stuart and Market streets thence running Easterly along the south line of Market street forty-five feet ten inches, thence southerly at right angles one hundred and seven feet six inches, thence Westerly and parallel to Market street forty-five feet ten inches to the Easterly line of Stuart street, thence Northerly along said line one hundred and seven feet six inches to the point of beginning.

Also that certain piece or parcel of land bounded and described as follows : commencing at a point on the East side or line of Stuart street ninety one feet eight inches from the Southerly line of Market street, thence running Easterly and parallel to Market street one hundred and thirty seven feet six inches to the westerly line of East street, thence Southerly along said line forty-five feet ten inches, thence Westerly at right angles one hundred and thirty-seven feet six inches to the Easterly line of Stuart street, thence northerly along said line forty-five feet ten inches to the point of beginning.

To have and to hold the said above mentioned and described tracts and parcels of land, with all the rights, privileges and appurtenances thereunto belonging, for the following trusts, uses and purposes, and not otherwise. That whereas the said Brannan is about to establish a Banking House in the said City of San Francisco, and State of California, under the name and style of

SAMUEL BRANNAN'S BANK, and wishing to secure and make safe all persons who may deposit money in his said bank, the foregoing property is conveyed in trust for the purpose of securing each and every person who may deposit money in his said Bank, and have a credit for the same either by entry on the books of the Bank or by issue of a certificate or other evidence of deposit. It is therefore hereby provided, that on the failure of the said Brannan or his agents to pay, on presentation to said Bank in said City to the proper officer or agent, of any certificate or other evidence of deposit, and on demand of payment of the same in the regular Banking hours, or on demand of payment of any sum due by way of deposit and failure of payment of the same, the holder or owner of said certificate or other evidence of deposit may at once apply to any Court of competent jurisdiction for judgment or decree for the amount of the same, which, being duly rendered, on default of payment, the said Trustees shall proceed to sell at public auction, for cash, after an advertisement of twenty days in at least two of the public papers of said City, all or so much of said property above described as will pay off and discharge such claim or demand arising by way of deposit in said Bank, together with all costs and expenses.

It is further provided, that a majority of said Trustees may act for the purposes of the execution of said trust, that in the case of the absence or death of all or any one of said Trustees. or inability to act, or resignation of the said Trustee, the said Brannan shall have the power to substitute other Trustees in the place of those deceased, absent, resigned or incapable of acting, which shall be done by appointment by the said Brannan under seal, which said appointment shall be acknowledged before a Notary Public or other officer or magistrate authorized to take such acknowledgment, and recorded in the office for the registry of Deeds of the County of San Francisco. And in case of failure of said Brannan to appoint Trustees competent to discharge such trusts, then the Judge of the Fourth Judicial District Court, on application and five days notice by any creditor by deposit, shall have power to appoint said Trustee or Trustees to execute the purposes of said trust.

It is further provided, that in case of sales, the said Brannan or his lawful agent or representative shall have the right to point out what property and in what parcels it shall be sold, so that sufficient shall be pointed out for the payment of any demand for the satisfaction of which, said property shall be exposed to sale as above provided.

It is further provided and stipulated, that at any time when said Brannan may wish to close said Banking business or return said deposits and call in the certificates and other evidences of the same, he shall have the right to advertise in the public newspapers in the cities of San Francisco and Sacramento, requiring the depositors in said Bank to withdraw the same and return the certificates and other evidences of said deposits, and after the same shall have been duly advertised for the period of six months, then said Trustees, their survivors or successors, shall be required to re-convey said several tracts of land, the titles to which remain vested in them under this conveyance, and being so conveyed, the trust shall be discharged, and said property shall be in all respects discharged of the lein, trust or mortgage of any kind created by this deed or conveyance, provided, nevertheless, that all deposits are paid which are demanded, and payment of which is due and owing, and from the date of said re-conveyances all deposits not called for shall remain a personal debt, but the lein hereby created shall be and remain discharged.

Witness our hands and seals this Twenty-first day of October, A. D. eighteen hundred and fifty-seven.

SAMUEL BRANNAN. [L. S.]
ANN LISA BRANNAN, [L. S.]
By her Attorney in fact, Samuel Brannan.
VOLNEY E. HOWARD. [L. S.]
SAMUEL J. HENSLEY. [L. S.]
ELI COOK. [L. S.]

STATE OF CALIFORNIA,
COUNTY OF SAN FRANCISCO, } *ss.*

On this Twenty-first day of October, A. D. 1857, before me, a Notary Public in and for the County aforesaid, personally appeared *SAMUEL BRANNAN*, *SAMUEL J. HENSLEY* and *ELI COOK*, to me personally known to be the individuals described in, and who executed the foregoing instrument, and acknowledged that they executed the same freely and voluntarily, for the uses and purposes therein mentioned.

And on the same day, also personally appeared

SAMUEL BRANNAN,

known to me to be the Attorney in fact of ANN LISA BRANNAN, one of the individuals described in, and who executed the foregoing instrument, by her said attorney, and the said SAMUEL BRANNAN acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned, and as the act and deed of the said ANN LISA BRANNAN.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year first above written.

[L. S.]

GEO. T. KNOX, Notary Public.

STATE OF CALIFORNIA,
COUNTY OF SACRAMENTO, } *ss.*

On this Twenty-sixth day of October, A. D. one thousand eight hundred and fifty-seven before me, Carl C. Finkler, a Notary Public in and for said County, personally appeared *VOLNEY E. HOWARD*, to me personally known to be the individual described in and who executed the foregoing instrument of writing, and acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year first above written.

CARL C. FINKLER,
[L. S.] *Notary Public, Sacramento Co., Cal.*

Filed for record by request of Samuel Brannan, at 3 o'clock P. M. this 27th day of October, A. D. 1857.

G. W. BECKH, *Recorder San Francisco County.*

Know all Men by these Presents: That

THIS INDENTURE, made and entered into by and between SAMUEL BRANNAN and ANN LISA BRANNAN, his wife, by her attorney in fact, SAMUEL BRANNAN, of the City and County of San Francisco, and State of California, parties of the first part and VOLNEY E. HOWARD, of the City and County of Sacramento; SAMUEL J. HENSLEY, and ELI COOK, of the City and County of San Francisco, and State of California, parties of the second part,

WITNESSETH, That the said parties of the first part in consideration of One Dollar, and divers other good and valuable considerations hereinafter expressed, have bargained, granted and conveyed, and by these presents do bargain, grant and convey unto the said parties of the second part, in trust however, for the uses and purposes hereinafter expressed, all those certain Lots, Tracts, and parcels of Land and Real Estate, with all the buildings and improvements thereon, lying and being situate in the City and County of Sacramento, in the State of California, bounded and described as follows, to wit: That certain piece or parcel of land, with all the buildings and improvements thereon, commencing at the southeast corner of J and Front streets, thence running easterly along the south line of J street seventy-five feet, then southerly and parallel to Front street eighty-five feet, thence easterly and parallel to J street seventy-five feet, thence southerly and parallel to Front street forty-five feet, thence westerly and parallel to J street one hundred and fifty feet to the easterly line of Front street, thence northerly along said line one hundred and thirty feet to the place of beginning.

Also, that certain piece or parcel of land with all the buildings and improvements thereon, commencing at a point on the easterly line of Front street twenty-four feet northerly from the northeast corner of Front and L streets, thence running northerly along the said east line of Front street one hundred and twenty-six feet, thence easterly and parallel to L street one hundred and fifty feet to an alley, thence southerly along the west line of said alley ninety feet, thence westerly and at right angles twenty feet, thence southerly and parallel to Front street thirty-six feet, thence westerly and parallel to L street one hundred and thirty feet to the point of beginning. To have and to hold the said above described tracts and parcels of land, with all the rights, privileges and appurtenances thereunto belonging for the following trusts, uses and purposes, and not otherwise. That, whereas the said SAMUEL BRANNAN is about to establish a Banking House in the said City of San Francisco, and State of California, under the name and style of

SAMUEL BRANNAN'S BANK,

and wishing to secure and make safe all persons who may deposit money in his said Bank, the foregoing property is conveyed in trust for the purpose of securing each and every person who may deposit money in his said Bank, and have a credit for the same either by entry on the books of the Bank, or by issue of a certificate or other evidence of deposit. It is therefore hereby provided, that on the failure of the said BRANNAN, or his agents, to pay on presentation to said Bank in said City, to the proper officer or agent of any certificate or other evidence of deposit, and on demand of payment of any sum due by way of deposit, and failure of payment of the same, the holder or owner of said certificate or other evidence of deposit may at once apply to any Court of competent jurisdiction for judgment or decree for the amount of the same, which, being duly rendered, on default of payment, the said Trustees shall proceed to sell, at public auction, for cash, after an advertisement of twenty days in at least two of the public papers of said City, all or so much of said property above described as will pay off and discharge such claim or demand accruing by way of deposit in said Bank, together with all costs and expenses.

It is further provided, that a majority of said Trustees may act for the purposes of the excution of said trust, that in the case of absence or death of all or any one of said Trustees, or inability to act, or resignation of said Trust, the said BRANNAN shall have the power to substitute other Trustees in the place of those deceased, absent, resigned or incapable of acting, which shall be done by appointment by said BRANNAN under seal, which said appointment shall be acknowledged before a Notary Public, Magistrate or some other person authorized to take acknowledgments, and recorded in the office for the registry of Deeds of the County of San Francisco, and in case of failure of said Brannan to appoint Trustees competent to discharge such trust, then the Judge of the Fourth Judicial District Court on application, and five days notice by any creditor by deposit shall have power to appoint said Trustees to execute the purposes of said trust.

It is further provided, that in case of sales the said Brannan or his lawful agent or representative shall have the right to point out what property and in what parcels it shall be sold, so that sufficient shall be pointed out for the payment of any demand for the satisfaction of which said property shall be exposed to sale as above provided.

It is further provided and stipulated, that at any time when said Brannan may wish to close said Banking business or return said deposits and call in the certificates and other evidences of the same, he shall have the right to advertise in the public newspapers in the Cities of San Francisco and Sacramento requiring the depositors in said Bank to withdraw the same and return the certificates and other written evidences of said deposits, and after the same shall have been duly advertised for the space of six months, then said trustees, their survivors or successors shall be required to re-convey said several tracts of land, the title to which remains vested in them under this conveyance, and being so conveyed, the trust shall be discharged and said property shall be in all respects discharged of the lein, trust or mortgage of every kind created by this deed or conveyance, provided, nevertheless, that all deposits are paid which are demanded, and the payment of which is due and owing, and from the date of said re-conveyance all deposits not called for shall remain a personal debt, but the lein hereby created shall be and remain discharged.

Witness our hands and seals this Twenty-first day of October, A. D., eighteen hundred and fifty-seven.

SAMUEL BRANNAN. [L. S.]
ANN LISA BRANNAN, [L. S.]
By her Attorney in fact, Samuel Brannan.
VOLNEY E. HOWARD. [L. S.]
SAMUEL J. HENSLEY. [L. S.]
ELI COOK. [L. S.]

STATE OF CALIFORNIA,
COUNTY OF SAN FRANCISCO, } *ss.*

On this Twenty-first day of October, A. D. 1857, before me, a Notary Public in and for the County aforesaid, personally appeared *SAMUEL BRANNAN*, *SAMUEL J. HENSLEY*, and *ELI COOK*, to me personally known to be the individuals described in, and who executed the foregoing instrument, and acknowledged that they executed the same freely and voluntarily, for the uses and purposes therein mentioned.

And on the same day, also personally appeared

SAMUEL BRANNAN,

known to me to be the Attorney in fact of ANN LISA BRANNAN, one of the individuals described in, and who executed the foregoing instrument, by her said attorney, and the said SAMUEL BRANNAN acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned, and as the act and deed of the said ANN LISA BRANNAN.

[L. S.] IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year first above written.

GEO. T. KNOX, Notary Public.

STATE OF CALIFORNIA,
COUNTY OF SACRAMENTO, } *ss.*

On this Twenty-sixth day of October, A. D. one thousand eight hundred and fifty-seven before me, Carl C. Finkler, a Notary Public in and for said County, personally appeared *VOLNEY E. HOWARD*, to me personally known to be the individual described in and who executed the foregoing instrument of writing, and acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year first above written.

CARL C. FINKLER,

[L. S.] *Notary Public, Sacramento Co., Cal.*

Filed for record by request of Samuel Brannan, at 10 22-60 o'clock A. M. this 26th day of October, A. D. 1857.

JEROME MADDEN, *Recorder Sacramento County.*

Know all Men by these Presents: That

THIS INDENTURE, made and entered into by and between SAMUEL BRANNAN and ANN LISA BRANNAN, his wife, by her attorney in fact, SAMUEL BRANNAN, of the City and County of San Francisco, and State of California, parties of the first part, and VOLNEY E. HOWARD, of the City and County of Sacramento; and SAMUEL J. HENSLEY, and ELI COOK, of the City and County of San Francisco, and State of California, parties of the second part,

WITNESSETH, That the said parties of the first part, in consideration of One Dollar, and divers other good and valuable considerations hereinafter expressed, have bargained, granted and conveyed, and by these presents do bargain, grant and convey unto the said parties of the second part, in trust, however, for the uses and purposes hereinafter expressed, all that certain piece or parcel of land lying and being situate in Sutter County, on Feather River, in the said State of California, with all the buildings, fences, and other improvements thereon, bounded and described as follows, to wit:—Two miles square on the west side of Feather River, starting one mile south of the Ranchori Olush, and running two miles northerly along the west bank of Feather River, from thence at right angles two miles westerly, from thence at right angles two miles southerly, and from thence at right angles two miles easterly to the point of starting; the same land as was conveyed to the said Brannan by John A. Sutter, Junior, by deed, bearing date the eleventh day of May, A. D. eighteen hundred and forty-nine-containing 2,600 acres more or less. Boundary more particularly described in survey of the County Surveyor of Sutter County. To have and to hold the said above described piece and parcel of land with all the rights, privileges and appurtenances thereunto belonging for the following trusts, uses and purposes, and not otherwise. That, whereas the said Samuel Brannan is about to establish a Banking House in the said City of San Francisco, and State of California, under the name and style of

SAMUEL BRANNAN'S BANK,

and wishing to secure and make safe all persons who may deposit money in his said Bank, the foregoing property is conveyed in trust for the purpose of securing each and every person who may deposit in his said Bank, and have a credit for the same either by entry on the books of the Bank, or by issue of a certificate or other evidence of deposit. It is therefore hereby provided, that on the failure of the said Brannan or his agents to pay on presentation to said Bank in said City, to the proper officer or agent of any certificate or other evidence of deposit, and on demand of payment of any sum due by way of deposit, and failure of payment of the same, the holder or owner of said certificate, or other evidence of deposit, may at once apply to any Court of competent jurisdiction for judgment or decree for the amount of the same, which, being duly rendered, on default of payment, the said trustees shall proceed to sell at public auction, for cash, after an advertisement of twenty days in at least two of the public papers of said City of San Francisco, all or so much of said property above described as will pay off and discharge such claim or demand accruing by way of deposit in said Bank, together with all costs and expenses.

It is further provided, that a majority of the said trustees may act for the purposes of the execution of said trust, that in case of absence or death of all or any one of said trustees or inability to act, or the resignation of said trust, the said Brannan shall have the power to substitute other trustees in the place of those deceased, absent, resigned, or incapable of acting, which shall be done by appointment by said Brannan under seal, which said appointment shall be acknowledged before a Notary Public, Magistrate, or some other person authorized to take acknowledgments, and recorded in the office for the registry of deeds of the County of San Francisco, and in case of failure of said Brannan to appoint trustees competent to discharge such trust, then the Judge of the Fourth Judicial District Court on application, and five days notice of any creditor by deposit shall have power to appoint said trustees to execute the purposes of said trust.

It is further provided, that in case of sales the said Brannan or his lawful agent or representative shall have the right to point out what property and in what parcels it shall be sold so that sufficient shall be pointed out for the payment of any demand for the satisfaction of which said property shall be exposed to sale as above provided.

It is further provided and stipulated, that at any time when said Brannan may wish to close said Banking business or return said deposits and call in the certificates and other evidences of the same, he shall have the right to advertise in the public newspapers in the Cities of San Francisco and Sacramento, requiring the depositors in said Bank to withdraw the same and return the certificates and other written evidences of said deposits, and after the same shall have been duly advertised for the period of six months, then the said trustees, their survivors or successors shall be required to re-convey said several tracts of land, the title to which remains vested in them under this conveyance, and being so conveyed the trust shall be discharged, and said property shall be in all respects discharged of the lein, trust or mortgage of every kind created by this deed or conveyance, provided, nevertheless, that all deposits are paid which are demanded, and the payment of which are due and owing, and from the date of said re-conveyance all deposits not called for shall remain a personal debt, but the lien hereby created shall be and remain discharged.

Witness our hands and seals this Twenty-first day of October, A. D. eighteen hundred and fifty-seven.

SAMUEL BRANNAN. [L. S.]
ANN LISA BRANNAN, [L. S.]
By her Attorney in fact, Samuel Brannan.
VOLNEY E. HOWARD. [L. S.]
SAMUEL J. HENSLEY. [L. S.]
ELI COOK. [L. S.]

STATE OF CALIFORNIA,
COUNTY OF SAN FRANCISCO, } *ss.*

On this Twenty-first day of October, A. D. 1857, before me, a Notary Public in and for the County aforesaid, personally appeared *SAMUEL BRANNAN*, *SAMUEL J. HENSLEY*, and *ELI COOK*, to me personally known to be the individuals described in, and who executed the foregoing instrument, and acknowledged that they executed the same freely and voluntarily, for the uses and purposes therein mentioned.

And on the same day, also personally appeared

SAMUEL BRANNAN,

known to me to be the Attorney in fact of ANN LISA BRANNAN, one of the individuals described in, and who executed the foregoing instrument, by her said attorney, and the said SAMUEL BRANNAN acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned, and as the act and deed of the said ANN LISA BRANNAN.

[L. S.] IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year first above written.

GEO. T. KNOX, Notary Public.

STATE OF CALIFORNIA,
COUNTY OF SACRAMENTO, } *ss.*

On this Twenty-sixth day of October, A. D. one thousand eight hundred and fifty-seven before me, CARL C. FINKLER, a Notary Public in and for said County, personally appeared *VOLNEY E. HOWARD*, to me personally known to be the individual described in and who executed the foregoing instrument of writing, and acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year first above written.

CARL C. FINKLER,
[L. S.] *Notary Public, Sacramento Co., Cal.*

Filed for record by request of Samuel Brannan, at 3 o'clock P. M. this 27th day of October, A. D. 1857.

C. E. WILCOXON, *Recorder of Sutter County.*

POWER OF ATTORNEY.

Know all Men by these Presents, That I, ANN LISA BRANNAN, at present residing in the City of Geneva, have made, constituted and appointed, and by these presents do make, constitute and appoint my husband, SAMUEL BRANNAN, of the City and County of San Francisco, in the State of California, my true and lawful Attorney for me and in my name, place and stead, to enter into and take possession of all such lands, tenements, hereditaments, and real estate whatsoever I am or may be in any way entitled or interested in the State of California, and to mortgage, lease, grant, bargain and sell the same or any part or parcel thereof for such sum or price and on such terms as to him may seem meet, and in my name to make, execute, acknowledge and deliver good and sufficient mortgages, leases, deeds, and conveyances, either with or without warranty, and to ask, demand, sue for, levy, collect, recover and receive all sums of money which shall become due, owing, payable, and belonging to or detained from me in manner, way, or means whatsoever by any person or persons whomsoever, by means of such bargain, and sale, and lease, and demise.

Giving and Granting unto my said Attorney full power and authority in and about the premises ; and to use all due means, course and process in the law for the full, effectual and complete execution of my business, and in my name to make and execute due acquaintances and discharge, and for the premises to appear and the person of I, the constituent, to represent before any Governor, Judges, Officers and Ministers of the law whatsoever, in any Court or Courts of Judicature, and there on my behalf to prosecute for debt, fraud, and any manner of claim I, the constituent, may have against any person or persons, and to answer, defend and to reply unto all actions, causes, matters and things whatsoever, relating to the premises.

Also, to submit any matter in dispute respecting the premises to arbitration or otherwise, with full power to make and substitute for the purposes aforesaid, one or more Attorneys under my said Attorney, and the same again to revoke at pleasure.

And generally to say, do, act, transact, determine, accomplish and finish all matters and things whatsoever relating to the premises ; as fully, amply and effectually to all intents and purposes as I might or could do if personally present, although the matter should require more special authority than is herein comprised, hereby ratifying, confirming, and holding valid all that my said Attorney or his substitute, or substitutes shall lawfully do or cause to be done, by virtue of these presents.

In witness Whereof, I have hereunto set my hand and seal the twentieth day of February, in the year one thousand eight hundred and fifty-seven.

A. LISA BRANNAN.

Signed, sealed and delivered in presence of:

NATHANIEL BOLTON,
SARAH T. BOLTON.

On this twentieth day of February, A. D. eighteen hundred and fifty-seven, personally appeared before me, Nathaniel Bolton, Consul of the United States of America, residing in the City of Geneva, Switzerland, **Ann Lisa Brannan** who is personally known to me to be the individual described in, and who has executed the foregoing Power of Attorney, and who acknowledged to me—she having first been made acquainted with the contents thereof—on an examination apart from and without the hearing of her husband, that she executed the same freely and voluntarily, and for the uses and purposes therein expressed, without fear or compulsion, or undue influence of her husband, and does not wish to retract the execution of the same.

In witness Whereof, I have hereunto set my hand and affixed the Seal of this Consulate, the day and year first above written.

NATHANIEL BOLTON,
U. S. CONSUL.

Recorded in the office of the County Recorder of San Francisco County, in Liber 4, of Attorneys, page 272.

G. W. BECKH,
County Recorder.

THE

EYE-GLASS:

— AN —

INDEPENDENT WEEKLY OBSERVATOR.

"If we offend it is with our good will."

ISRAEL M. PECKSNIFF, ESQ., EDITOR.

SACRAMENTO, AUGUST 22, 1857.

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THE EYE-GLASS:

Inspecting matters Literary and Artificial, with Anecdotal Notices of the Eminent and the Lowly.

VOL. 1. SATURDAY, AUGUST 22, 1857. NO. 1.

SALUTATORY.

The people are very near sighted, but being fearful of a charge of dandyism they refuse a glass. Said Bottom, "some man must represent *Wall*." Now some of our party must have the moral courage to come out and span his nose before the world. We shall be called all sorts of naughty names, but none will trouble us after this notice of expectancy and preparation.

We entreat thee, most affable reader, to show thy best nature to our child; in case you are ill-disposed, go your way.

Conscripti Patres—*Salve!* We shall pay our respects to you frequently, as your operations require the most excellent lens in the market. We can see you from the house top, but we shall often relent, since it is hard to breathe long under such muddy water.

We salute most heartily the dealers in Dry Goods and Groceries. You're an interesting class in community, and you pay for the newspapers. Accept our nod, and look at our terms—cheap. We shall lay down pleasantly on any counter.

Brick Makers, Brick Layers—*Salve!* We shall advocate fair wages and prompt pay. Dealing as you do in the original elements of man, you will have a zest for our discussions of first principles. *Salve!*

Ladies, most fair Ladies, most sweet Ladies—Ha! now we tremble. But it must come. Ladies, we should like to circulate amongst you. Evening parties won't do; we shall call before dinner. *Salve!*

Candidates, Gentle fellows—your hands. We shall have very many things to say of and to you, but don't take anything to heart, as there is no malice. There will be no difficulty; you are such inordinate clever folks. *Salve!*

Governor! we would salute you if we only knew where you were.

Gamblers, Thieves, Toadies, Stuffers, *et id omne genus—Salve!* What an army you are among us, with your banners behind the walls. Pray God, you may not increase! Whilst by tender permission, you infest our neighborhood, we will give you a reasonable number of salvos.

T. John: we remember your father, Confucius. He was a clever old gentleman, and would have lived to a much greater age, if he had only possessed a remedy for the gout. Ride on the outside of a coach John? Nice country John—see it through an eye-glass. You're a rare people, Johns.

Brethren of the Press, it is not in our province to make the first formal greeting. We hope to find you amiable.

We have a kind word for all, but we love our patrons.

VARIOUS THINGS.

The Last Resort.—Some of the papers at the Bay are making a great ado about the recent parade of the criminal force of San Francisco. Such measures are properly of last resort, but they are in no case outrageous or inhuman. They have been found to be very effectual in New York and Boston in rendering more secure both property and life. A man detected in the commission of crime, or even charged with a violation of the law is liable to meet the gaze of all those who may choose to attend at the Court room. The "outrage" then consists in the larger personal acquaintance which these hopefuls are likely to make with the citizens of the township or city. The air in a park is much healthier than that which the prisoners breathe in the jail or court house, and really the exposure in a damp dungeon over night is worse than a free show under a clear sun. Ah! Chief Curtis, it is a pity that you will act so badly. *Our* worthy Mayor will hardly set his "special policemen" at such contemptible business. Happy we.

Transparencia.—*H. Jeffreys.* My Lord, I am not a handsome man, but I was fairly nominated unto a high calling. I am full of sound judgment, and natural it is that I should wish to serve my county, and relieve my soul, o'ercharged with judicial goodness. My Lord, we are working men—ours is a hardy race, and those who know me best, declare that I am no Lacky Reservator.

Mephistophiles. Come down proud yeoman, and let me kiss thee.

H. Jeffreys. Nay, my Lord, I know my weakness. I am not pretty, but when thou comest to the ballot, consider.

Mephistophiles, [weeping.] Methinks.

"Nay Verily."—A righteous phrase commonly used in speaking of a Spanish claim to land, ragged with underwood, and beautiful with flowers.

NATURAL HISTORY.— *White Livered Larrapins.* There has been considerable enquiry excited in regard to this animal recently, as it figured in a sweet political sermon chaunted by Mr. Ferguson in front of the Orleans. The origin of the word *Larrup* is somewhat in dispute. Some claim its derivation from the Saxon *Larrain*, to lick; others refer it to the word *Leerope*, a knout for the sailor boy. However, this we know—*Larrapin* signifies that class of pusillanimous creatures who may be whipped or spit upon with impunity. "White Livered" animals of this specie have very little, but very pure blood. Its nature is amphibious; its food, rice water.

QUERY.—The Republican candidate for Governor in his Sacramento speech, said that he had "rather be a dog and bay the moon" than be *such* a Republican as the *Union* cut out on paper. If, as some believe, the moon is but a green cheese man, it may be well to consider as to whether Mr. S. has not offered an indignity to his second?

CONSTITUTIONAL.—Mr. Ferguson has suffered on account of his neglecting to consult with the Judges of the Supreme Court relative to the constitutionality of the Settler Bill. He improves by experience. When he declares now that he will get tight when he pleases—he defends a "perfectly *constitutional* right." Any one taken before the Recorder's Court and fined for getting drunk and making a noise, can appeal and have the judgment set aside. Probably Recorder D. feared such action when he discharged Brannan and McGowan and fined Cunningham and Dunn on the same day, for offences of the same character.

UNTRUE.—It has been charged that Col. Watkins was hood-winked by the Prison lessee in the Legislature last winter. The slander reached the ears of the old hero, and proceeding to San Francisco he confronted Estell before a bar-room full of eminent democrats. "Did you bamboozle me last winter, you rascal you?" "I did not, Colonel; I believe I spoke to you very rarely about State Prison affairs." "Gentlemen, you hear what that rascal says—I was not bamboozled." "I never dreamed of such a thing, Colonel—come gentlemen, let 's take a drink." "Well Estell, there is some fine points about you—you rascal—no mistake!" [Applauding clink of the glasses.]

HE WOULD.—General Estell would like to make a speech in Sacramento during the present canvass. He would accept an invitation to speak from the Democracy, and would take for his subject "*The Union Party.*" He says that he can beat Ferg. on the score.

Forgives him.—A few weeks ago, a distinguished member of the last Legislature wrote to one of his political associates in this city asking for the loan of two or three hundred. In his letter of request, he stated that he recollected that during the war on the State Prison matter, Gen. Estell frequently spoke of the enormous profits which his particular friend had made, by grinding down the poor squatters. In reply Mr. M. said that he had supposed, or should have supposed that his correspondent was sufficiently well acquainted with Gen. E. to know that when he wrote a book he left a wide margin for some honest man to fill up.

Gen. E., on being informed of this matter, sends his best respects to the squatter's advocate, with an assurance that his little malicious persecutions are forgotten, and blotted out forever—all because he wrote something that made the General jolly.

Curious.—"How was it, General, that the Colonel came to endorse you as an honest man?" "Why we were pretty intimately connected on the Committee of Accounts and Expenditures last winter. I relied upon him, and always voted by his judgment." "Well, all I have to say is, that if the Col. gained confidence in you through a close acquaintance, he got a great deal nearer to you than any other man in the State of California ever did before him."

FEMININE.

Mr. Editor: I have got quite tired and disgusted with the slang about the fashions of women. I am inclined sometimes, just out of spite, to initiate a really ridiculous style, so as to freshen up the newspaper gales. You take at random a full dressed male squib from the street, and you will have a subject fit for laughter, if indeed the thing is not too contemptible. You men can dress as you please, however, with little risk of unpleasant criticism. Now if we do not dress in the fashion we are noted as poor, or slovenly, or else our character is "not feminine." We obey; the street is a perfect gauntlet in which as we pass, we receive the heming and hawing insinuations of the counter dappers. I could if I liked be specific in my charges, and smooth many a ruffled bosom by the utterances of truths pent up within me. But just now I forbear. I say this: the dry goods merchants are ready enough with their "new patterns;" why then do they allow their beardless tape boys to stand outside their doors to stare at us until we feel unhappy? Do the rival firms joke each other on the appearance of their goods when made up? It's a pity bub has nothing to read inside the store.

May be I am an exception. But I am not an old maid, speaking sourly. If I chose, I might call myself flattered when the clerks giggle loudly about my being pretty. JENNY.

P. S. by Mrs. Jenny's husband. SIR: I have been suspicious of my wife's correspondence for some time. This morning I detected the accompanying letter laying on her dressing case. I think that it would be but just to punish her by a complete relation of the facts in the case. *Miss* Jenny—she intimates that she is young and single—has been joined to me in holy matrimony for some six years, and I'm sorry for it. I am a little fellow, and she calls me "bub." I am one of those clerks whom she affects to censure and despise. Sir, she trails the street every afternoon. It is her chief glory to shuffle through the "gauntlet," and she comes home with a bad disposition if the boxes and bales are not covered with spectators.

I am ashamed to say all this, but I think I am acting conscientiously. My wife is a hypocrite. That her censure was quite uncalled for is sufficiently obvious. I never before heard from any one that the members of my profession in this city, were impertinent in their manners. If you admit the above communication, I trust that you will subjoin this explanatory note. Truly yours, JOSEPH.

MR. EDITOR: I have received a hint of your project. You intend, as I understand it, to favor in an especial manner the members of our sex by advocating their rights and denouncing their wrongs. I am rejoiced to learn this fact, and I take the first opportunity to profit by it personally. I have attended some of the political gatherings in this city—all of those held before the Dawson House, and *one* in front of the Orleans—and I have listened attentively to the tidy little young men who have cleared their maiden throats for the Legislature. I call upon the Democratic, American and Republican candidates for the Law-making Department of our State Government to express their views on the Divorce Law, and the rights of married women to hold property in their own name. Come Billy, drop your roll, and answer for yourself in this matter. I would also like to have the County Judge candidates say something definite on this subject; and Mr. Robert Robinson, please conclude your remarks by stating as to whether you hold your views in the premises as an American, or as a Republican, or as an old line Whig? I know that Mr. Smith will reply to my queries, for though he is not handsome, he's very gallant nowadays. M. S.

[Expressly Reported for the Eye-Glass.]

SPEECH OF THE HON. JEFFERSON CARBUNCLE, DELIVERED IN FRONT OF THE PEQUONIC HOUSE, AUG. 20, 1857.

Fellow Citizens : When I look round about me, first on my right hand and then on my left, I almost seem to feel the return of the inimitable 4th of July days of our forefathers. I ask, why do I behold in the full blaze of the moon light this mighty sea of upturned noses. Why? Ah sirs! we smell political rats! [Great applause.] We have come together to fix our seal of miserable contempt upon those traitorous rascals who have wormed themselves into the ship of State and are eating up all the duties which custcm had previously put into the treasury of our government. [Applause.] Fellow citizens, it is no wonder that we are righteously indigent at such things. With a land whose mountain heads are silvered with snow, whose breast and belly is of gold, with streams of flowing wealth pouring from our chimneys, and with the heavens full of pigeons, we stand shivering here to-night without any of us being able to exhibit the most common place sign of pecuniary ability. [Sensation.] How are we to bring about a reform? —that's the practical question. How can we best secure the desired DESIDERATUM which we at present contemplate afar off? I speak plainly. We must incarcerate another set of beings into office, or there will be another 4th of July. "A word to the wise is sufficient." Unless the fees in all our offices can be reduced equally with those reduced in our State Treasury last year, we shall perish as an independent institution, and the Express Companies will have it all in their order. There is a woe on my back if I do not tell you to look after the affairs of government.

Fellow citizens, you have nominated me for a high old place in this county. I have a wife and six children, and three small cases in court which I took for neck or nothing, and which I am sure to lose. You see what a despicable position I occupy as worthy of your daily regard. I have raised $150 amongst my friends to pay for hand-bills, circulars, posters, larrapins, bands of music, hot sling for the Central Committee, etc., etc., etc. Now if I fall in this contest you can imagine what may become of me! I may go down to zero in the scale of human existence. Unable to supply the family circle with our daily papers, patriotic to the last moment, without a necessity of life fulfilled, I shall depart from an ungrateful soil, never to come again. [Sensation—a voice—"Augh, don't, git yet Jef.; I tell you we are going to bring a bully crowd from Folsom."] I shall not go unless you refuse my abilities. [No, no.] Fellow citizens, the struggle grows more rash, and yet rasher every day. I feel well towards my enemies, and to my friends I cry as with seven voices besides my own, "*Pitch in*" Let that be your watchword whilst you stick by me. I am in favor of the flag of our Union, and your countenances encourage me, and the dulcet tones of my Mary Ann swells my heart towards an explosion in indefatigable zeal for my election.

But I have done with personalities. Of my opposition, I know very little, but they must be bad men. [A voice—"What's that?"] I speak as a public political character, and not otherwise. Let none take offense. My friends, my opposition are two—I am one and by myself. Not only will the government be reformed when I get into office, but there will be a change in the incumbent. But fellow citizens, other gentlemen who wish to speak are pulling at my coat-tail. I shall enjoy further privileges of confronting you in the premises. Let me conclude immediately as follows:

"*Stand*, the spoils' your own my braves!
Will ye give 'em up to slaves?
Look ye still for greener graves?
Are there greener still?" [Heavy applause.]

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EPITAPH.

Here lies in the dirt, under this slab,
The remains of one Drover who drove a cab
For the famous Sir John Wight;
He met with a most untimely fate
Whilst driving in at an inn-yard gate,
One dark and stormy night—
For the beams o'erarched, being not very high,
He was forcibly struck with a beam in his eye,
From which time he never saw light.

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LITERARY NOTICES.

We read in one of our city papers some time since an article expressive of grief at the falling taste of the community in the selection and study of good books. Such a silly and unfounded suspicion is likely to come from young men who have but recently opened a book without a yellow cover. The growing appetite for solid literature is unquestionable, and the Potiphar purchasers are rapidly diminishing. A wealthy ignoramus with a full library is a laughing stock for the peasant. How is it in California? How is it in our own community? Witness the display of the most excellent recent publications on KIRK's counters, on the arrival of every steamer, and mark how quickly they disappear.

THE PROFESSOR.—This is Miss Bronte's first work. Some of the incidents of the story are nearly identical with portions of "Villette." The reader will not expect to find an equal to Jane Eyre, but the warm heart and strong will of Currer Bell is quite manifest in *The Professor*. The purchase of this book will naturally follow a perusal of Mrs. Gaskell's Life of Charlotte Bronte.

RUGBY SCHOOL.—Dr. Arnold kept a first rate school when "Old Boy" went to him with napkin and silver fork. The Dr. had hard ways; he clung to the fagging system, and exacted severe penances. But he was an even man and he strove to make his boys appreciate and act from that *truth of honor* better than all jewels, and of which the bastard sprigs of chivalry never dream. Where do we form such friendships as at school, and in college? We venture to say that an OLD BOY's account of the Rugby sports and disciplines has been as efficacious as Good Master Mustard-seed in making many an eye water ere now. We get old and proud, and do not like to confess all our sympathy with and regret for the past, but no one who cherishes old memories could quote our author's language in his saddest mood and call him a "sniveller."

This book is very entertaining as descriptive of English habits. More than one old boy makes a story therein. The type, paper and binding are excellent.

MCGOWAN AND PICKET.—We have have duly received the recent productions of these young authors. The "Life" of the Martyr while persecuted, and the "Oration" of Charles the Apostle, are both characterized by that fine audacity which is said to be the distinguishing trait of the delicate children of genius. There are two public institutions in our State, that should long since have respectively afforded a safe haven for these bold Reformers. Alas! what groans we do hear from some of the sons of men! We hesitate about dignifying Charles with the epithet "crazy." He is a sort of a hotch-potch wandering minstrel, drunk with his own inordinate self-conceit, and demonstrating at terrible length his proposition—"muscle over mind." But Edward is up to his pretensions, as a neat speculator in political ethics.

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INDUSTRIAL INTERESTS

OF

CALIFORNIA:

BEING

A SERIES OF LETTERS

RELATING TO

OUR HOME MANUFACTURES, INDUSTRIAL LABOR, AGRICULTURAL PROGRESS AND MATERIAL INTERESTS.

BY AN OLD RESIDENT.

[J. W. Osborn]

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OUR MATERIAL INTERESTS.

Our Material Interests—Are we to have a Policy that will Develop them?

EDITOR BULLETIN:—For twelve years successive Legislatures have left the aggregate result of their deliberations in our voluminous statutes. In all this mass of laws is the policy of the State unmistakably pointed out. Has not a large portion of the time of those supposed to be studying the State's best interest and advancement, been frittered away in aimless and desultory law making, tending more to individual gain than to the present and future prosperity of our State?

Thus at the end of twelve years' legislation, California is much like a strong, well-found, richly laden ship, sailing with every fair wind upon the ocean, but without any port of destination decided upon, the parties in command being engaged in quarreling over the bullion on board, thinking but little of the sales of the cargo entrusted to their charge, where the landfall is to be made, or what their after-lading is to be, while future repairs and portage bills are not thought of. The ship is well manned and found at present; when the time of renovation and short freights come, new men will be in command, and new men at the helm, and their responsibility will have ceased. California should have a policy, marked and distinct as her coast line, and comprehensive to embrace the variety of production in her agricultural and mining resources—a policy to which, however parties may differ in regard to our national administration, all should conform.

The present Legislature, elected more for their devotion to the Federal Union than to party creed, have it in their power to map out a course of action so publicly manifest to be beneficial to every interest and source of prosperity in our State, that future legislative bodies will, from public interest, be obliged to follow that line of State policy which the present Legislature can with great propriety unanimously decide upon. It is a point on which men of all parties can agree; one in which no party, as things now are, should claim preference; one that no party in power dare gainsay or abuse. Let those who have the State's interest decidedly at heart reflect for one moment on the isolation of our State from other well-peopled countries, and from the States of our own Union, and the necessity that we shall and must provide for ourselves is apparent. Follow up the thought as to the best means, and the value of judicious legislation that will guide our people into the production of those articles which can be manufactured here, making to them new sources of wealth and lessening the dependence of our State on other States and nations, and achieving the best results of all legislation, prosperity to our people; will be too apparent to need argument.

There is another point of view in which this subject may be looked at, and that is its financial effects. Our Constitution provides, perhaps wisely, for a metallic currency for our State. Twelve years of experience shows us that although this system possesses much of good, there are some evils connected with it. The probability is that had our early legislators foreseen that in all our dealing with paper-money countries the goods we purchase would cost us fifteen to twenty per cent. more than they do those who buy with paper money and its accompanying means of credits, that the rates of interest would remain as high as they now do, and that our business currency should be so small in volume that the sudden withdrawal of $500,000 or $800,000 from any unusual cause should be felt in every business enterprise of the State, they would have made such other enactments as would have kept more of this life-blood to our prosperity within our borders. So great a drawback have these results been to our prosperity, that nothing but the youthful energy of our population has kept them from being utterly disheartened. It is not sufficient to point at what they have done, and say none have done more; for the business men of California possess more energy of character, more readiness of resource, more elasticity under difficulty and misfortune, than any army of business men of equal numbers ever before enrolled under the banner of one State.

Had our early legislators, when they made a metallic currency our basis of business, also taken the measures which would have soonest rendered us independent of purchases of the paper-money States, then would their scheme have been complete. From $25,000 to $50,000 per year spent in rewards to industrial enterprise would by this time have rendered us independent of three-fifths of our outside purchases, doubled our taxable wealth, and saved to the State the yearly outlay of twenty-four of the forty millions of the cost of our purchases. We possess the power of production; we have the ingenuity and skill, and the labor with which to manufacture. All that is necessary is for our State to do what all other good governments have done, that is, cherish their growth and progress in their infancy and incipient stages, until able to go alone. Every new product or manufacture here is beset with difficulty in its early stage and growth; the value of capital and its demand is such as to keep the capitalists in the beaten track; the new productions and manufactures are the fruits of the industry of the adventurous and the enterprising, and have not the support of capital until their success is achieved.

But it is said, these things will all come in time—yes, in our children's time, when they might just as well be in our own, and it may be sound policy that we should not wait. If we review the business interests of the State before the calamities of this deluge had fastened on them, a very small proportion of them were in such financial prosperity that change would not have been welcome. The second great interest of the country, agriculture, was prostrate, and every business link connected with it was affected, except that of shipping. Proud as we were of our cereal shipments, many of them were a loss to the State, in so much taken from its fertility without remuneration to its producers. Now that calamity is pressing on our resources, there is all the more need that our people should be guided into these channels of business, which will give more variety of employment, more scope of production and less risk in the future. Such encouragement requires no outlay from the State, and no increase of taxation. There is no call on the treasury until the desired results are achieved, and a new source of wealth and taxation added to our resources.

If we wish to invite immigration, how can we so well secure the mechanic and manufacturer? If we wish to secure and make prosperous those who are now here, how better provide new avenues to their industry? If we wish to build up and benefit our inland cities, how better than by the encouragement of home manufactures? If we wish to cover our valleys with railroads, what better inducement can we give to their construction than the bulky freights of diversified agricultural production? If we desire to bring commerce to our ports, we have only to produce freights for the ships. If we would command money facilities, we must buy of ourselves, not of others. If we would have employment for our people, it must be by the encouragement of home industries which will command capital investment. In fact, if California is to be the great State we so fondly hope, if our commerce is to be the first on the broad Pacific, and if we wish to see this greatness, we must be wise in our own day and generation, and advance our State beyond the mining, agricultural and pastoral point by adding home manufactures to the measure of our resources.

Let the present Legislature take a broad view of this important subject; make it a matter of legislative enactment and control; let the people understand that no local clique or favoritism is to come between them and the reward of their industry; give a liberal bonus, over a term of years, for the production and manufacture of every article within the compass of our capabilities and wants: and in five years sueh results will be brought forth that in the prosperity of our people the calamities of floods and bad legislation will be blotted from their memories.

What are Evidences of the Prosperity of the State?

Editor Bulletin:—As your paper bears evidence of willingness to encourage that element of newspaper life which is found in communications from its readers, possibly you will find room for mine, even if I do not always agree with current thought or opinion.

In the general quiet of business throughout the State, which apears somewhat like a rest after a fast race, it may do no harm to examine if we have made all needful preparation to make a successful run through the next ten years of our course. If we look back over the past ten, we will find a very large majority of those who started in the race of business have dropped by the way. Merchants and mechanics, bankers and contractors, have alike, in many cases, given way to new men. In the mines we find, in a majority of cases, that the pioneers have gone to the wall, and in the agricultural districts, too many old farms are cultivated by new men to make that branch of business an exception to the rest. We have no statistics by which to make comparison, nor have we precedent from which data may be had for such comparison with other pioneer efforts, to see if our killed and wounded in the battle of California business have exceeded or been less than the losses made in building up other new countries, for no other country has been built under similar circumstances, or with the same rapidity as this one. Australia affords the only comparison, which, so far as it can be made, appears favorable to Californian industrial interests. If we judge by the accumulations in the savings and loan societies, or by the daily investment in the real estate operations of our city, we must infer those who labor and have been economical have been prosperous, to an amount in strong contrast to those who have in past days furnished the means, material and finance for this labor. Those who lend and those who make ground rents their source of income have also prospered, while in many cases those who have paid the lender and the rents have been swept away in the same current of unsuccess which has overwhelmed the builders of the first mills, tunnels, roads and canals of the miner, and the founders of the first farm and orchard improvements of the State. Who can fairly say that it is their fault, where the changes and growth of our State has been so rapid, that what the best business sense of the community one year approved, has the next been condemned? We have seen wisdom fail and folly succeed; the earnings of energy lost in depression, while other investments have made a tenfold increase from the absolute inertia of their owner. We have also seen industry fail and idleness succeed, until in the complication of these kaleidoscopic changes all rule and direction which governed our former business life and judgment have in a manner been lost.

It would appear as if these sudden changes and anomalies of business are in a measure past, and that our people are, with a quiet economy and careful wisdom, preparing for the state of things called for by our change from the prosperous go-a-headitiveness of a new country into the staid ways of an old State, where business profits are light and competition certain. There are indications of a check in ambition and enterprise; the profits to those who have started new undertakings have not in all cases been such as to give encouragement to those whose inclinations would lead them to make investments of capital in business that requires a course of years to bring returns, and for the last few years the gains of nearly all business, instead of being used in its extension, have been devoted almost entirely to the accumulations of an interest account—a business which, from its very nature, keeps its votary in a beaten track and time-worn securities. Our city would continue to grow and improve as the population of the State increased, even if that population by their labor only each day worked out the necessaries of life, for these necessaries would mainly pass over our wharves and docks and create business. Then our poor-rates and houses of refuge would increase, our business profits would be small and infinitely subdivided. In that case, the growth of our city would be no criterion of the prosperity of the State, nor would our own growth and prosperity be like that which would ensue when the labor of our interior population was remunerative and prosperity reigned with them.

Let us make no mistake in what we deem evidence of our prosperity. Our city's interest is an increased population, and our State's interest is in their having profitable and remunerative employment. To do well, and keep our tide of progress at the flood, while we invite and are eager for the one, we must provide the other. A large export of gold would show we are buying much that we might produce and manufacture, and is not an indication of prosperity, unless accompanied with liberal profit to the miner, enabling him to make permanent improvements in the State. A large export of grain is no criterion of the prosperity of the farmer. If shipped at a loss to the producer it is in a measure a loss to the State, for it is so much taken from the productiveness of the land without adequate return. True, so much is saved to the State in capital, but the soil is reduced in value, for the agriculturist has not the means to make it a return. Buildings erected from the proceeds of ground rent and interest account are not evidences of prosperity, if the payers of both rent and interest have been bankrupted, for what we gain in buildings we lose more than double in the loss of the energy, ambition and industry which contributed the means to build them.

To my mind, there are far more evidences of general progress in a successful foundery, machine shop, manufactory or farm, than in a huge pile of brick and mortar which combines ten times their capital. When the gains of successful business, which we know in their accumulation kept other trades in motion, are directed to the improvement of our city, we may proudly point to it as an evidence of progress in our State; and it is a healthy indication of our future prosperity when investment takes this form, instead of the monthly compounded interest account. When the cargoes of our out-bound ships have remunerated their producers, so that the means are left with them for further investments, to keep up our soil in its virgin richness of production, we will have a tangible evidence of agricultural prosperity in their business calls on our city.

But the best evidence we could have of general progress and prosperity on sure basis, will be when the loaning of money is not the best business in the State; when capital alone cannot accomplish more than capital and industry combined; and the question for all who wish the State well to solve, is the best means present and prospective, to change this anomaly of finance and business, which is the nightmare and fear oppressing every busines energy of our State.

A Review of Present Business.

Editor Bulletin:—The ready answer which would meet my inquiry of the last letter would be, "when our capital increases;" but that *when* is a fearful bugbear to those who have dropped down a few rounds in Fortune's ladder, or who are still at the bottom and desire to climb up. To my mind, it can be hurried a little, so that our State may not only be looked upon as desirable to the immigrant, but that those who have expended the best years of their lives in making California what it is, may at least have an opportunity to reap some benefit from these exertions, which heretofore have in the main inured to the capital, to the manufacturers, shippers and shipowners of other countries, or the drones of our own hive. It is evident that the active capital and currency of the State has not increased so fast as the wants of business. Outside the largest cities there are no accumulations of capital, and the whole trade and traffic of our State is made on a currency so limited that the withdrawal of $500,000 or $600,000 from our circulation, from any cause but that of the regular steamer shipments, is felt in every business circle of the State.

With a metallic bank whose capital has not been reckoned; with millions of monthly export, it should be in plenty for every want of business. With a country possessing unlimited range of product, with an earnest call for every manufacture and enterprise, with a commerce opening to our view, expansive as the waters of the Pacific, it would appear that capital should pay its holders the twelve to twenty-four per cent. demanded for it, and also pay the workers on this capital for their expenditure of industry and energy in its use. That we have reached near the close of 1861 without either of these conditions being absolutely or even generally fulfilled, appears to me good argument that there is something wrong—a screw loose in our business arrangements—and that the fault somewhere rests with ourselves; that there is not here enough capital for business purposes remaining in the State, and that business does not better pay. There has been no want, nor do we lack bankers in our community to assist industrious enterprise, full often at their own cost. There has been much of individual liberality and more will, industry and energy expended than any equal population has ever shown. With its results to the State and nation, every Californian may feel an honest pride; with its results to individuals, he can but regret. We have fought and won a great battle of material and social progress, but owing to the amount of loss in killed and wounded, demoralized and crippled, an advance of our business army is not possible, unless a change is made in some of the features of the campaign. That change, and how to arrive at it, is a problem that should now occupy the mind and thought of every business man, and of every real friend of our State.

As in the last five years our export wealth has increased, and ship after ship has left our ports loaded with our own productions, the capital saved the State seemed enough to place our finances on an easy footing, and we saw apparently the elements of accumulating wealth. But the lessened call for merchandise in the agricultural counties, the falling off of their payments to the city, and the accumulation of mortgages, and now of bankruptcies, unmistakably show that a large export trade must under ordinary circumstances be accompanied by a scale of prices which are bringing ruin on this important interest of our State. Although the good expected has been in part achieved, the evil that accompanies it may take years to remedy. Not alone the agricultural counties, but the pastoral counties are, if possible, in still greater difficulty, for nothing but the wool clip appears during the last year to have afforded a return to them. Thus we are deprived of a profitable business from each of those great interests of the State, without any immediate prospect of its quick recuperation. The difference between liberal purchases and those of bare necessity from so large a portion of our population, if continuous, must have a sensible effect on the business and real estate interests of our city.

With ourselves in the city, the chances and lessened profits of trade, after driving many an ancient house from its foothold, are gradually converting our importers into jobbers, and our jobbers into retailers, until change is written on every feature of our business. Our community is small; our trade limited. Any cause which affects a part is felt at once on the whole. We can afford to lose no part of our present business. Whatever will be left is not sufficiently extensive that any can be spared. The loss of $4,000,000 or $5,000,000 per year of business, which is about the difference that prosperous seasons makes in the calls from the agricultural districts, will be felt through all our business and commerce. Families, and business men of all kinds, are curtailing their expenditure, and thus exciting another great influence on the profits of trade. The risks of speculative monopoly of any article of daily consumption are so well known, that this class of business has lost its most ardent votaries; so that, altogether, merchants' profits have been less, and risks, too, have been greater than they would have been, if the bulk of their goods could have been of home growth or manufacture with an open competition. Nor does the prospect of the future open with better promise. The great railroad is far off, and our distance from the other States so great that we will not feel even the impulse which peace will give to every interest in their borders. We are isolated and self-dependent, but it is clearly our own fault if we continue to be vassals and interest-payers to them and other countries which our large import trade now compels us to be.

The Range of Present Occupation, and Necessity of Change.

EDITOR BULLETIN:—If we must wait for capital—if our State's riches are to be from the gains of present business, or of future efforts containing simply the same elements as the business of the last five years, with only the same comparative growth of new undertaking—we may wait long for that accumulation which will give us means for the building of our railroads and manufactories, the necessities of a firm and stable growth. For, although the State's progress has been marked, it has been with a waste of individual wealth and exertion—always excepting those who have worked for wages, for they have gained, while in the main those who have paid them have lost. If this conclusion is doubted, see how small a minority our successful merchants make of their total. See who were the prosperous boss mechanics, builders, and contractors of our early days, and see how few have firm foothold now. Ride through our agricultural counties, and note how many farms can be bought for the cost of improvements placed on them. Examine the stock ranches and you will find that the depreciation has reached such depth that it is only checked by the value of the hides and tallow of the herd. The original orchard investments have nearly all changed hands; and our most substantial mining improvements have been the financial death of their originators. Then say if this progression has not been dearly purchased.

We look in wonder at some monuments of antiquity, forgetting the wear and tear of human brain and bone and muscle in the construction. Let us not in our pride in our State's progress, forget what it has cost—that the young men who composed our early army of emigration have spent the best years of their lives in its accomplishment, and if many have sunk by the way let us not, in utter forgetfulness of benefits, scatter their bones to the winds; but if moved they must be, let it be in all decency, and let a monument mark the resting place of these pioneers of our city and of our State. While, however, thought is given to the dead, let care be had for the living. Let the supports of Fortune's ladder be as many as possible, give all a chance to climb, and in common honesty, if we invite the immigrant, let us provide employment for him. As it has been, not much of care was necessary. The mines were free to all, and to those who did not or could not work there, the agricultural and other labor employments were open. The success of all these created other business which gave openings for the employment of the balance.

But we have reached a time of change; every agricultural and pastoral valley and village is at a standstill in progress and improvement, from the extreme low prices of their productions of the last few years, checking at once their demand for labor, our cities' manufactures, and our inbound commerce; for the productive interests of our State are in amount so great, and give employment to so many people, and support so large a portion of our population, that any change which affects their prosperity for good or evil, has an effect more or less prompt in its manifestation on the business and real estate interest of our city. It is much for San Francisco's interest that a greater range of culture should be introduced in the State, that the business with our agricultural districts should be increased, and placed on a basis which would render it less liable to fluctuations, and be more valuable to us than the present business, which in its amount is wholly reliable on the changing values of wheat in foreign markets. With mixed or diversified crops there would be little difficulty in increasing the population of our agricultural counties to three times that of the mining counties. The advantage to business such a backbone of stable population would create, is too apparent to need argument. If we wait the slow progress of immigration and the invitations we now hold out to them, we may wait long, for it will take years of ordinary effort for our agriculturists and stockmen to overcome the evils now weighing on them, and none can conscientiously advise new capital investment in our common agricultural pursuits.

We all know our own local evils, but there is another evil almost at our doors, in which our business men are directly interested. The calls for enlistment, and the new mining calls for a time use up the surplus labor, and although sufficient for him who works for wages, bids fair to increase the agricultural difficulties by the enhanced value of labor to them, so that although the effect of the war may be next season to advance the price of their products, they may not be any better customers to us, from the greater cost of raising them. So that, view the matter as we may, it is for our city's interest that the breadth and variety of the agriculture of the State should be enlarged, and any legitimate means which can be used to accomplish this end speedily, the better for the business men of our own day and generation. The question now arises, how such result may be accomplished, which in its success would do so much for the business and real estate interests of our city.

What Home Manufactures have done for other Nations, and what California pays to other States.

Editor Bulletin:—It is well known that all exclusively mining or exclusively agricultural countries are poor; that the production of raw material from the fields and forests, or crude metal from the mines—even though that metal be gold or silver—is not productive of wealth to the mass of such population, or of great advantage to the social and material interests of the country that confines its industry mainly to these resources. The experience of the last ten years in its results to the mass of individuals in our State, would go far to show that a union of mining with agriculture, as in our case, affords not alone sufficient strength of resource to ward off from our population, so far as desirable, the evils of an exclusively mining or agricultural State; and if we go over all history we shall find their fate—poverty to individuals—until some other element of employment and progress was added to their national strength. We need only the example our own ancestors afford to point out our own need and policy. Though England is first heard of in the world's history by the efforts of the Phœnician navigators to obtain the products of her mines, although her agricultural and pastoral wealth tempted the Roman conqueror, we do not hear of her as a power in Europe until her manufacture for export of coarse broadcloths had given her home industry and wealth. We have only to look now to the power which mining wealth, careful agriculture, and home manufactures combined have given the commercial and political interests of Great Britain, to read a lesson for the future for our own day and generation, to give such proper business impulse to our State's progress that the pioneers in this last great effort of civilization may see no check in its march onward, until our State occupies the position destiny marks for her, as the great commercial empire of the Pacific. Home manufactures are the source of England's strength—of the wealth of Old and New England—and of the power of recuperation which has enabled Prussia, Germany and France to recover from the devastating effects of many a hard fought battle. Home manufactures will give California the necessary addition to her mineral and agricultural resources, that will furnish her people remunerative employment, give her the necessary capital and currency, make good all promise to immigration, however large, lift up the weights from business, and make our agricultural districts glad with a variety of crops and remunerated effort.

We now import in round numbers, "say" seventy-five dollars to each individual of our white population. All but fifteen dollars of this amount we can, if so minded, produce ourselves, and that without reducing our present commerce, for with greater population and greater export there will be a change and not a reduction in the amount of shipping business, while the interior business would increase five-fold. Could we at once produce and manufacture the articles we now import—except those which are beyond our production—we would immediately save $24,000,000 of yearly out-payments, which would be added to our currency or cash capital. Any portion of this amount, which we may by strenuous effort or steady support of home-made product keep here, is so much added to present capital, and while thus in the power of individuals to do much, it is in the power of the State to do much more. A judicious yearly appropriation of $100,000, running over a term of five years, would set all the wheels and springs in motion that would bring about this result. Five or ten years in the life of our State are not much; twenty-five cents outlay to the individual per year, on the present amount of population, is not a large sum. Yet, if our legislators could be made to look squarely at that five years' outlay, and at its ten years' result, our people's two bits apiece will be remarkably well invested. I fully believe we could then have home manufactures of every wearable product, and home productions of four-fifths of our present importations, with the commencement of an export trade which will eventually whiten the Pacific with the sails of our commerce.

Is this a day dream? I have seen this State grow; I have seen each year some new element of future wealth and progress, until I have the most unlimited faith in its future greatness and destiny; and I have the same faith that it is in our power to hurry forward that greatness of commerce and wealth of production, so that the progress of the ten years on which we are now entering, will far exceed the past in material interest and of benefit to individuals. I may be pardoned for adding, that I have just as firm faith that if we continue legislating for party and political interests, instead of for the material interests of our State, more of depression and ruin awaits some of California's best interests than prosperity. We can be wise in time and ward off evil. The business from the agricultural districts lifted our city once out of financial distress. Aid them now by the variety of production and ready market which home manufactures would insure, and we establish a foundation for our city's trade and prosperity which cannot be taken from us, while it will add millions to the active business capital of the State.

How the State Government may Develop our Resources.

Editor Bulletin:—The great range of latitude and consequent variety of soil and climate within our State's borders render possible a variety of agricultural resources which no other State of our Union possesses, while but few countries can show an equality either in variety or extent of production. Geographical position gives us the advantage of markets, which our countrymen, or European competitors, can only reach by sailing round a continent, while that same position—distant from all sources of manufacturing supply—acts as a protection to any branch of industry to which California enterprise may give birth, but permits no interchange of products with a drawback in freights and expenses, onerous in their amount in time of peace, and prohibitory in time of war.

Our political position calls from the State Government more careful legislation than that of any other State, while the general policy of the Federal Government may not always be in harmony with the State's best interests. It would be for the benefit of our State to speedily develop every material resource, in order that we may become independent of all the other States in regard to their production and manufactures, and so far as possible of foreign nations. As we export but mineral and agricultural products, all our exchanges with them are unfair, as we only exchange raw material, produced with high rates of labor, without after benefit to us of manufactures, against their goods and products of low rates of labor. If we can obtain an offset by better communication with our own and other countries, at the partial expense of the Federal Government, we shall receive no more than our dues; but in the prosperity such facilties would give our business, the profit made upon us by the other States would not be so much to our detriment.

From necessity we shall for years labor under these disadvantages, if we wait the natural development of the State's resources without extracting stimulus or legislative aid. The necessity exists that our State Government should do for California what stronger and more centralized governments have done for their countries. Liberal rewards offered will cover our fields with strange harvests, and bring forth the products of the loom, spindle and workshop in such perfection that all reasonable wants may be supplied in home manufactures. With a liberal premium for the first hundred bags of sugar or first 1,000 bales of flax, hemp or cotton; for the first 1,000 bales of drills or burlaps, manufactured from California-grown material, in mills erected for the purpose; or for the first hundred bales of hops, or hogshead of tobacco; the first 1,000 cases of merchantable boots and shoes from California-tanned hides; the first ten or first hundred bales of raw silk—and so on through every branch of industry and agriculture whose products or manufactures are yet foreign to our soil—I say, with liberal premiums of that character offered to them by the State, farmers, mechanics and manufacturers would soon be enabled to deserve and win them. Let the State offer liberal rewards, but let the State be sure that the rewards, when paid, are merited. Let us encourage no second-rate product or inferior manufacture. Place the merit-mark high, make the stimulus great; but let it be fairly earned.

Let a committee of the Legislature summon some of the practical mechanics, manufacturers, and producers of the State to their aid; carefully select those productions and manufactures to be encouraged; let the list be full, but have each thing or product in itself complete; make the thing such that none may fear a change of policy before his productions have reached maturity—and a stimulus may be provided, which will double, in a few short years, the whole taxable wealth of the State. As Californians we have done much—no persons or people have done more; but we cannot stop or hesitate. Our machine of progress must be kept in running order. We, who have made the State what it is, have the power to double her strength, her wealth and population, long before our children are ready to take our places. We have only to make the encouragement of home production a cardinal point and prominent feature in our State policy, to not only provide business for ourselves, and a heritage for our children, but to give California a first position in the Federal Union, before the business life has ceased to the energetic pioneers of '49.

HOME MANUFACTURES.

New Channels for California Trade and Industry.

Great as are the results of the last ten years' effort in making our State independent of foreign supply, we believe the results of the next ten years will manifest a productive and manufacturing ability in our people surprising to the most sanguine in California's power to rely on her own resources. Our workshops, founderies and manufactures will multiply as the raw material of their labor is found in our mountains or produced from our soil. Present events and the patriotism of our people will create a greater esteem for Californian products, until a tariff of public opinion, a fashion of wear and use of home-made articles give the efficient protection to the producer and manufacturer, which will encourage into life and daily consumption the products and manufactures of our State, enlarging the wealth and variety of employment of our people.

Our foreign commerce will also increase with the growth of capital and production, stimulated into the more immediate effort by the broad opening made for the products of our forests and shipyards, by the treaty made by the Allies with the Chinese. The opening of the great valleys of China is a commercial operation promising such vast results that their full scope and benefit to our people may not, for a time, be comprehended. We believe, however, it is destined to have a marked effect on our commerce, and early introduce a manufacturing interest to the Pacific States.

In the great valley of the Yang-tse-Kiang we shall probably have an unlimited demand for the products of our forests, while return freights may be had for our lumber-laden vessels in Chinese products, including cotton, which may be manufactured here for reëxport to the same countries. At first thought, this operation would seem to be at an impossibility of cost; but as hand labor, however cheap, has never yet competed with cotton-manufacturing machinery, and as we have here the power to construct, and skill and labor to use the machinery of woolen manufactories, it would seem as if we need not "wait for the railroad" to bring us the manufactures of the Eastern States, before we export piece goods to Asia. The import and manufacture of the first bale solves the whole difficulty, and if the production of cotton in the great valley of China is as abundant as present commercial information indicates, no country will reap a greater benefit from it than our own California. Our lumbermen, ship-builders and machinists will first feel the influence of this new opening to commerce; our whole people the effect of the returns of their adventures. Our next ten years are full of promise, heightened by the gratifying prospect of a large market for our exports and an increased employment for our population.—*Alta.*

Manufacturing Chinese Cotton in California.

Our correspondent, "Cathay," expresses some doubt as to the correctness of our opinion of the feasibility of manufacturing Chinese cotton in California into fabrics for the China market, and also expresses his own opinion that mills will be established in the Chinese cities, against which European or American labor can not compete. The unsettled and uncertain nature of the Chinese Government, the extortion of officials, and danger from robbers and insurrection, render any investment of capital in amount commensurate with the establishment of a cotton mill in any of the Chinese cities an undertaking so hazardous that no capitalist, or company, Chinese or European, would make the investment. In regard to their establishment at Hongkong, it would not be policy for the English Government to encourage an undertaking so much at variance with the interest of their largest manufacture. Climate and location are also against the undertaking. The freight of raw cotton from the valley of the Yang-tse-Kiang to Hongkong, against the monsoon, would require nearly an equal time, and be at as much expense, as the carriage from that point to our own ports.

In regard to labor, we have the precedents of British trade in India. English manufacturers import the Indian-grown cotton, manufacture imitations of the native cloths and handkerchiefs, underselling the Indian fabrics in the very districts where the cotton was grown. China is said to contain four hundred millions of people, whose clothing is mainly of cotton fabrics. If we estimate the consumption of raw cotton, exclusive of their imports, at fifteen pounds to the individual, we shall have a yearly production of raw cotton in China equal to twelve millions of bales of five hundred pounds each. There can be little doubt that with the introduction of the cotton-gin and better implements of agriculture, that this amount may be increased to a surplus for the most liberal export. We can ship our spars, lumber, and some of the products of our soil, but we cannot yet take a return freight of the more valuable Chinese products, for we have not yet the population to consume or the facilities to tranship them to the more populous States. But our vessels for the Yang-tse-Kiang might bring return of raw cottons to be manufactured on the splendid water powers of the timber districts of California and Oregon, affording our mechanics and machinists a new labor, and making available the Mongolian element of our population for that portion of the labor generally performed by the women and children of other countries.—*Alta.*

Increase and Decrease of Asiatic Cottons.

The production of American grown cotton has so steadily increased since the invention of Whitney, that the India manufactures of cotton and the Chinese manufacture of nankeens have been so effectually cleared from our markets, that but little recollection remains of their value and luxury to our immediate ancestors. And as the only imports of raw cottons have been the low-priced short-stapled cottons of Bombay, the existence of the fine qualities has been seriously questioned—although at an exhibition of India manufactures recently made at Manchester, some of the India products were finer than any of the English goods on exhibition. It is, therefore, fair to infer that these fine qualities have only to be sought for, and their culture will take the place of the coarser staples, now so abundant in India that the cost at the plantations is but from two and a half to three cents per pound, the latter price seeming sufficient to indefinitely increase the amounts for shipment from Bombay.

While the American culture annually advanced in amount equal to the calls of the new spindles, neither necessity nor desire existed to call forth steady effort to forward the Indian culture, which has only been called upon, spasmodically, as the American supply has been short.

That no raw cotton has been shipped from China is owing entirely to absence of demand; the course of trade, so far from calling for raw cottons, has acted as a direct prohibition of its export. When the direct trade with China was opened to Europeans, the export of manufactured cottons was as profitable to the Chinese as some of their other products now are. China then produced all her own supply, and enough for all the demands for export, until the inventions of Arkwright and Whitney enabled the Europeans to manufacture cottons cheaper than their hand labor would admit. At the same time, the growing demand for teas and other products afforded their agriculturists more profit in their culture, gradually lessening the home supplies of cotton until a large market is afforded to the piece goods of England and the United States, and also for the raw cottons of Bengal. Can any one doubt that demand would bring back its culture to its former extent, or that in spite of Chinese adherence to custom and precedent, that it might not be stimulated, as has been the production of teas, sugar, camphor, raw silk, and other articles for which Europeans have instituted a pressing demand? If we mistake not, the export of raw silk was increased in the course of ten years from 20,000 to 80,000 bales per annum, these last shipped from the new port of Shanghae against the demands and rivalry of an older trade at Canton.

The Chinese are wedded to old customs—but not against profitable employment of their labor and capital. Steadily demand their raw cotton, and in a limited period the bales will be produced for many a good ship's lading.—*Alta.*

Asiatic Production of Cotton.

Our correspondent, "Cathay," is still skeptical as to the amount of Chinese cotton produced, and expresses a general doubt as to Asiatic or Polynesian supply of this staple of commerce. Of course, in countries like China or India, statistical information in reference to production, except those comprised in their foreign exports, is simply impossible to be obtained; but fair inference may be made of the amount of this production when we have a knowledge of the amount of their population, of their habits of dress and consumption, as well as the amount of their foreign imports. We have these data, on which we gave our opinion in reference to the present production of cotton in China, making liberal allowances for the manufactured cottons shipped to their ports by European nations, and for their import of raw cottons from Bengal and Corea, making the total of our estimate only one-half the amount a late writer of intelligence has given of the Chinese product.

The estimate of fifteen pounds of cotton to the use of each individual Chinese, is the same as the quantity used by our citizens, who consume less cotton, proportionally, from the greater use of linens and woolens in the United States, while cotton is the staple of clothing of the Mongolians. The difficulty of cleaning raw cotton by hand labor will account for its production not being heretofore extended beyond the wants of a home consumption, aside from the difficulties of transport which a bulky, low-priced article would entail in a country where vehicles or beasts of burden are not in common use. In India, with all the aid of the bullock, camel and elephant, it was almost impossible to get the raw cotton from the interior to the seaports in good condition. The immediate effect the railroads built in the last few years have had in stimulating production, may be seen in the desire of the India landholders to evade their contracts to produce indigo, and apply their resources to the cultivation of cotton, which, since the introduction of the cotton-gin and the facilities of transport, has become more profitable than the indigo product. When we take into consideration that only eighteen years since the services of 180,000 oxen were required for the packing of 72,000 bales of cotton to Bombay, we may easily conceive the difference which will be made in the culture of this staple, now that a network of roads, constructed with a special reference to its transport, are spanning the peninsula. In fact, we already see the effect, in an export in the last year to Great Britain of some 600,000 bales, while near 400,000 were shipped to Canton. If we assume the present population of India to be 200,000,000, and allow the same estimate of consumption made for China, fifteen pounds to the individual, we have a total, including the exports, of India production of 7,000,000 bales of five hundred pounds each. If we assume the India and Chinese import of cotton, produced or manufactured in other countries, to amount to two pounds to the individual, we have an average use of seventeen pounds to the Asiatic per annum. We believe, however, twenty pounds per annum to each native of India, and twenty-five pounds to each Chinese, would be nearer the truth of production and consumption in these countries. Our correspondent, however, has taken so wide a range in his comments, we have not space or time to answer his inquiries in one article, but shall again recur to the subject, conceiving the introduction of manufactures to our State as of vital importance to our prosperity.—*Alta.*

Extent of Asiatic Cotton Lands and Scarcity of Timber.

We have heretofore spoken of the roads in progress to transport the India cotton. Enough of these are in construction for commercial and military purposes to make an ease of transport to all the products of Central India. This district embraces near 200,000 square miles, a large portion of which is adapted to cotton culture. Central China, the flowery land and home of agriculture in that country, embraces near 2,000,000 of square miles, one-third of which is classed with the best tillage lands of the world. The network of rivers between the Hoanghi and Yang-tse-Kiang, connected by the grand canal, affords easy transport to all agricultural products, when the Government of the country is sufficiently strong to prevent the outrages of robbers and the exactions of local mandarins. There can be no question on means of transport under a settled Government, whenever European factories are established at the cities on the great rivers, which we understand is admissible under the present treaties. These rivers drain a basin equal to 1,500,000 square miles, the Yang-tse-Kiang navigable for boats 1,700 miles, while large vessels can reach two hundred miles from its mouth. This country is bare of forests, except on the steepest mountains. Along ridges where other plants will not grow, pines are carefully planted to lessen the greatest evil in all Chinese economics—the scarcity of wood. There is always a demand for lumber for building and manufacturing purposes, as well as demand for spars for junk masts and foreign shipping.

Shipments, limited in amount, have been made from the United States and Manila. Spars have steadily been shipped as part of the outward cargo of our regular East Indiamen, while cargoes have been taken from New Zealand and from Columbia river, even before the gold discoveries in California. A steady supply, at low prices, will command a market extensive as the rivers open to trade while peace reigns in that country.

The Chinese are alive to the benefits of river steamers, and to the advantages which shipments on European vessels give in safety and certainty of insurance. Before the pirates made the voyages of the junks almost impossible, the Chinese merchant calculated to lose one venture in three. He now avoids the risk by freighting in foreign bottoms. The opening of the rivers will call for the construction of a fleet of light draught steamers, which California can supply. We have faith the trade may be ours, if the effort be made to secure it, and that as our mills increase, and labor decreases in value, we may make steady shipments of lumber to China's great valley, and, if we will, that the return vessels may be loaded with a product which will give employment to Californian looms and spindles. Our northern forests will resound with cheerful industry, and our shipyards give forth the productions of ingenious labor. Youthful California and Oregon will spare to aged China the surplus of their forests for the products of her plains, made bare of the wood by the wants for centuries of a dense population. —*Alta.*

Our Industrial Interests.

The industrial occupations of our State are now in process of change. The cost of labor has decreased to such rates, that new branches of industry may be introduced, giving employment to a large number of people, and adding greatly to the public wealth. There is now only one question in which capital and enterprise both hesitate, and that is in regard to the stability and reliability of their labor. The Fraser river stampede taught all those whose business compels the employment of many hands a serious lesson on the risks of their investment—an evil, sudden and startling in its effects to those who held open contracts, or whose crops were in need of the sickle.

To such excitements we are, from our situation, liable, until each foot of the coast, and every cañon of the interior, has been thoroughly examined. The very nature of our population is excitable and athirst for adventure, lacking a stability which would guaranty safety and continuance in any manufacture, or in any production requiring daily, steady, accustomed labor. The Chinese element of our population presents some resource from which at times to supply this necessary labor. Their services were availed of in the strawberry fields of Alameda this last season, and also in some of the vineyards of Sonoma. But the present crusade against this class of labor renders their future use uncertain, and in consequence, in many instances, a hesitation is felt in embarking in any enterprise which, to be successful, requires steady, moderate-priced labor. Any direct interference with labor in a young country like this, in which every manufacturing enterprise is yet in embryo, is in a measure suicidal to the interests of the whole community, for of a surety no new manufacturing effort, no new branch of productive industry will be opened, either to enterprise or capital, while labor is uncertain and the law of force supreme. The agricultural interest of the State is just now an instance of remarkable enterprise in the face of doubt and and ill-success. The labor market has receded five dollars per month, on which the farmers have made their venture, and thousands of men are now employed who would, perforce, have been idle but for this concession—thus having not alone present employment, but a greater abundance in the harvest time. The fact of a lower rate of wages will produce a steadier employment, more men will be hired by the year, and less unwillingness will be felt in increased labor when opportunity offers. With better service on the part of the employed, there will be more liberality and a greater breadth of employment offered. We are passing into an improved state of things in this respect, whose good fruits will, the coming season, be made manifest throughout the whole productive interests of the State.—*Alta.*

Californian Manufactures and their Export.

One of the advantages of an established trade is the assistance it renders to other trade and business. We will suppose the effort made to establish a demand for our lumber in the Yang-tse-Kiang; that we have introduced the cotton gin to Chinese industry, and that the bales of cotton are had for the asking. We are not confined to this trade; our woolen mills are in operation, and China wants the manufactured product of every pound of wool that California can produce, all the more ready to purchase, from the fact that we take cotton in return, which they can produce in abundance. The Chinese like the high-priced English cloths, but the lower classes cannot afford to buy them; and in the competition between the English, German and Russian low-priced cloths, the Russian has the preference, as making the better wear. One reason probably is, the Russian goods are all wool, while the English and German may contain some cotton. It is one of the mysteries of trade how Russia can undersell her rivals, with her long inland transport, but such is often the case, and of so much value is the trade considered, that very soon after the Crimean war, machinery was purchased at Hamburg and shipped by the Russian Government, for the erection of woolen factories on the Amoor. We can compete in this trade. Our wool will be saved two freights, and more than a year's interest on its cost, a saving to serve as offset to any additional price of labor, and a motive to encourage this branch of industry by judicious legislation and a sound public opinion on the question of a daily wear of the products of our own looms and home industry. We are again disappointed in the passage of our railroad appropriation through Congress, which renders it all the more important that California by her own products and manufactures should render herself daily more independent of the productions of those States that have withheld their votes and assistance to the great measure of our vital interest. We can build up home productions and home manufactures of the great staples of daily use and wear, and yearly lessen our dependence, increasing in the same ratio our own wealth of production and export. Let us have a little of the Virginia "homespun" and Massachusetts "tea party" spirit, and in less time than it would take to build the railroad, if commenced, we may double our domestic wealth and provide millions of labor to the population we desire. No larger amount of ready capital is required to accomplish this result—the germ is already with us, which we have only to nourish into life, to bear the fruits we desire. Encourage our woolen manufactures, and their success will bring forth the cotton mill and all its accompaniments of home industry and employment to our shipping.—*Alta.*

Cotton Product of the South Sea Islands.

We now come to the doubt expressed as to the cotton produced in the South Sea Islands. We have heretofore called attention to the value of the products of many of the South Sea Islands to the future commerce of San Francisco, and have at the same time spoken of the value of the cotton of the Fiji Islands, of its fine staple, luxuriant product and ease of cultivation. Our statements were based on information afforded by American voyagers to that part of Polynesia, and we now see them corroborated by the report of the English Cotton Supply Association, who speak of the Fiji Island samples of cotton as the best of their collection, and state 4,000,000 of bales as the capability of product of the Fiji group. Nor does this capability end here, for the New Hebrides, Western New Caledonia, and the Eastern portions of the Solomon's group, possess the same capabilities of soil and climate; the same rich volcanic soil, and the same sweep of trade winds and genial sea breeze, which produce the beautiful Sea Island staple of Fiji. On all these groups, except that of Fiji, the native labor cannot be relied on; any culture, whether cotton, coffee or spices, would require imported labor. Not so at Fiji—the savage warriors of that group, though terrible in their cannibal feasts, are industrious in the arts of peace, good tillers of the soil, and docile, industrious and ingenious under gentle government and requited labor. The "Rewa" district is the most available for immediate culture, a large and convenient harbor, with a river navigable for boats, penetrating into the fertile valley of Viti-lib. A cotton field of 1,800 square miles may be made valuable to its production, much of it with less effort than is required to clear many a forest farm. The native yam and taro patches cover this ground, while along the banks of the rivers, a sugar cane of rare luxuriance and richness adds a wealth to this district, destined at some future day to be to England's Australian colonies what the richest of the West Islands are to us. There is not the remotest doubt of the capacity of that part of the world to supply cotton of rare value, and in an amount equal to all the European and American consumption, if labor and capital are applied to it. The garden and gem spots of creation are in savage possession. Years hence, commerce and civilization will reach them. Some will be reclaimed to commerce in our day and generation, but more will rest free from the tread of the white man until another greater generation burst forth in adventure from our coast. To them they will produce the coffee, sugar and other valuables of traffic, with an abundance of richness unsurpassed in the present achievements of commerce.—*Alta.*

Cotton Import Assisting Home Production.

No one can doubt but that the best interests of our State would be subserved by the manufacture of cotton, not only for our own use, but for export. But the growth and cultivation of this staple sufficient for this purpose, involves the slow progress of years, and the fostering hand of legislative aid, to induce the embarkation of capital in the necessary large and lengthened investment. We can sooner reach the result of home production by the encouragement of import. If we can secure sufficient of imported cotton to warrant the erection of mills, that moment its cultivation will commence on our own soil, with a certain assurance its product will command immediate market, whether it be one bale or thousands. We have shown what we think the easiest sources of supply, but have not shown them all, nor in truth the nearest sources in the Pacific, aside from the supplies that might be acquired in the countries to the south of us. Cotton is found through all the Islands so lately described by Capt. Gibson, and is also in abundance in the Phillipines. Its cultivation and manufacture by the natives has in a great measure ceased, but demand and the cotton gin would also here secure its production. Enough, however, has been shown that we have only to desire to manufacture coarse cottons, to secure the upland staples in quantity unlimited, by using only ordinary commercial energy. To secure the Sea Island cotton, extraordinary effort will be required and a long outlay of capital; we doubt not, however, this outlay and effort will be made, that simultaneous with the introduction of coolies and its culture in Australia, the effort and active colonization will be made at Fiji. For all our present purposes the fine staple is not necessary to us; we do not want the fine goods for, the export trade we will have, nor would their manufacture be profitable at the labor rates of the next ten years. All manufactures and productions, except of the coarsest products, in some stage of their manufacture or cultivation, require a low priced labor. It would seem as if a special provision had been made for our wants in this respect in being so early in possession of this inferior labor. We can use the Chinese in those portions of the manufactures performed by the women, children, and lower class of labor in other countries, and for the weeding and picking the cotton fields of our own production, their presence rendering the introduction of this product and manufacture at this early stage of our State's progress not only possible but profitable. Every loom and spindle we can set in motion, creates employment for other labor; every piece of goods we produce, increases our State's wealth, and lessens our dependence; every bale of goods we ship, will give a return which will add not only to other business, but lessen the general cost of those articles we must import.—*Alta.*

Extent of Cotton Lands, and the Value of Manufactures to General Business.

So much has been said in favor of the acquisition of territory for the growth of cotton, that the idea has become general that a very large amount of land is required for this purpose. The reality is, that at three hundred and fifty pounds per acre, ten thousand square miles would grow the largest cotton crop the United States has yet had. So long have we used the cotton gin, that we forget the impulse which its invention gave to cotton culture. The first ten bales of American cotton sent to Europe were seized by the authorities, on the ground of the impossibility of the production of so large a quantity in America. The year before the introduction of the cotton gin, shipments had fallen off; its use immediately increased the shipments of the next year 1,000 per cent. more than the falling off of the year before. We have shown in previous articles that there are six hundred thousand square miles of present cotton-producing country to which the cotton gin is comparatively a stranger, and one-third as much more to which cotton is indigenous, but in which its culture has not yet commenced, and some thirty thousand square miles where the much coveted Sea Island is native to the soil, and having thus answered the question of our correspondent as to where cotton may be had, and where the cotton trade of the Pacific will be, we turn now to the labor portion of the subject, and the productive interests of our State, which would share the benefit of any movement towards home manufactures.

From what we have done, a fair inference may be drawn as to what we may do. We have, in this State and in Oregon, constructed woolen mills, and commenced the profitable manufacture of coarse goods for our own use, with a reasonable prospect of being able to manufacture for export. Next will follow the cultivation and manufacture of flax, until California burlaps become a staple of daily use and export. Then comes cotton, with all its attendant train of collateral labor and productions, agricultural, commercial, and mechanical. If we follow out a portion of the business of the manufactories started in our midst, we have some evidence of what an extension of this interest would accomplish for the welfare of this State. First, we have the capital invested in the business secured to California, with all the benefit to the material interests represented in the erection and construction of buildings and machinery. Next, we have the competition in the market for the wool crop, the buyer for home consumption against the buyer for other States, an insurance against combination, which will always secure the full value of the new staple to the producer. Next, the labor, direct, and indirect, concerned in its manufacture, beyond that required for the production of the raw material. Next, the labor of manufacture of the product of the mill into clothing, in this case greater in the number of employés than that of the number directly engaged in the mill. We then have the advantage of capital retained in the community for every displacement which its products make in our regular imports, and the saving made to individuals in the cheapening of all articles with which its manufactures come into competition. The success of manufacturing will call forth new effort, which will require the services of machine shops and founderies, and the planting of madder and indigo for dye stuffs. Still more success, and we have a material of constant export suitable to the wants of those countries to which the whole civilized world will long be dependent for that tea product which no other soils have yet yielded in abundance.—*Alta.*

Available Labor for Home Manufactures.

In any movement made towards home manufactures, or the cultivation of the finer products of the soil, the question of the value of labor becomes the turning point on which success or failure will depend. On all out-door labor agreeable to the European or American, five to ten per cent. advance, beyond the highest rates paid in the Atlantic States, can be easily afforded, from the fact of equal daylight, and a favorable, bracing climate, giving the muscular power, health and will to the laborer to accomplish more than the laborer of other lands. The protective tariff which distance, freights, time and interest places upon all imported goods, also allows a better rate of wages to be paid to the indoor operative. But, as before stated, there are certain portions of the work on all fine productions, either of the manufactory or of the soil, which must be performed not only by a cheap, but by a patient, steady, reliable and sober labor; but where the possibility exists without a very active ambition to soar above the monotony and sameness of a never varied toil.

Some labor the white man will not perform; other kinds he will in no case but that of a personal interest, perform well; and still other which will not afford the lowest rate which white labor will for many years reach in California.

The hoeing and picking of cotton under a burning sun, the weeding and picking insects off of tobacco, are among the disagreeables of out-door labor; while few strong and hearty intelligent Americans will patiently follow the loom and spindles, year in and out, at any rate of wages which manufacturers can pay. For whatever we may produce from our factories, either of home production or for export, comes directly in competition with the low-priced labor and machinery of other countries. Whatever we may desire to export, except the cereals, be it hops, dried fruits, tobacco or cotton, which requires much of labor in preparation, is barred where all the details are managed at high rates of labor. We can manufacture, if the looms and spindles are attended by moderate steady labor; we can cultivate fruits for export, if the drying process can be cheapened; we can cultivate hops, if the picking and drying are at one-half the usual rates of harvest labor; we can grow tobacco, if the weeding and insect-cleaning can be done at the same ratio of cost, and the same with flax or cotton; but as the labor on all these occurs at the same season, when out-door wages are at the highest on account of the cereal harvest, there is almost a prohibition against any enlarged culture under present customs. On all manufactures and prepared crops the indirect labor is nearly as great as the direct labor of production. On all these branches of business a portion of the labor requires skill and intelligence; in all the indirect labor the highest order of labor intelligence is necessary. We may have the lowest order in the weeding and spinning; the highest on the assorting, curing, manufacturing, selling, shipping, packing and freighting, besides all the collateral labor of construction, tool and machine-making and preparation, so that throughout the whole range of the different business herein sketched, at least two Americans may have profitable, first class employment for every cheap operative in the lower or earlier stages of the product, a fact that those who frown on our Chinese labor would do well to consider, lest they in their crusade against them shut the door of profitable and agreeable employment to many of their own countrymen.—*Alta.*

Benefit to Individuals.

Having heretofore referred to the woolen mills already established, we will further consider some of the indirect benefits already dawning upon us through their operation. The tweeds and flannels turned out are all wool, of a class suitable for the manufacture of coats, pants, shirts, and clothing generally. It is difficult to arrive at the amount per annum we now import of manufactured goods under these heads, except that of flannel shirts, which has been, in the past, in amount varying from 1,250,000 to 1,500,000, each representing one dollar, for the product of other States, for which we are now in a fair way to manufacture ourselves.

The operatives now engaged in the manufacture of shirts from Californian flannel turn out a capital fabric, which can be sold already at the same rates as the imported article. Did the business end here, it would be a very desirable operation for the State, and a benefit to individuals, in the fact that so much more money was left in circulation, prospering the immediate producers, manufacturers, and operatives. But aside from these benefits of remunerative employment to so many people—from wool producer through all the changes, until the shirts are in the retail stores—there is a positive benefit to the consumer; he buys a better and more durable article at the same cost which has been paid for articles of a mixed fabric. The Californian-made article bids fair to do thirty per cent. more wear than the imported, aside from all the extra warmth which a home-made article will impart to any one who has identified his life interests with our State. The tweeds are most desirable wear in this climate, and the shawls not surpassed, for gentlemen's use, by the best imported. We have now within our power to stop the drain on our cash resources of an amount of which two and a half millions per annum have left our shores since 1849. If our citizens have enough of patriotism to make Californian productions and manufacture the fashion of our State, we need not "Wait for the Railroad" to be the wealthiest community in the United States. Every production or manufacture we adopt adds to the current wealth and value of every other article of our production. Each manufacture that becomes part of our daily use gives employment to the present, and a profitable call to a greater population. Each manufacture that becomes a success induces a new effort, until step by step, and year by year, the comforts of life are increased, while cost as regularly decreases; and without other effort than a general preference for the product and manufacture of our own State, we will add to our wealth, accelerate our progress, until our California becomes, in our day and generation, wealthy, powerful and self-reliant in her manufacture, production and export, from the industry, intelligence and patriotism of her citizens, of value to her far beyond the mineral wealth her mountains and rivers have so freely given forth. Political difficulties of our country have left our State to her own resources—we are deprived of the aid a generous Government should have given us. We commend this subject of general use and favor of home manufactures to our citizens, as an element which will go far to compensate for the impetus to our progress the Pacific Railroad would have given.—*Alta.*

The Manufacture of Manila Rope.

We have lately referred to the progress made in the manufacture of Manila cordage in our city, and the relative value of our own manufactures in comparison with those of Manila and of the United States. Also, in regard to the experiments now being made in the use of manufactured Manila for bolt ropes to the cotton canvas sails. If our city manufactures can maintain their present character, we shall eventually secure the cordage market of the whole Pacific coast. If the whaling fleet make our harbor their rendezvous, our home market for it will be largely increased. If further trial shows that Manila for cotton canvas bolt ropes to be better than hemp, its manufacture and consumption generally will be increased, enough, in fact, to effect the value of the Manila hemp, which, within the last few years, has remained at comparatively low figures.

This article of commerce is derived from a species of banana tree, indigeneous to the forests of Mindanao, one of the largest islands of the Phillipine group. The tree is cultivated for its fiber, which is obtained by rotting the trunk of the tree until the woody matter falls away from the fibre, which, with little cleaning, becomes the Manila hemp of commerce. This is collected by the natives into rolls, bundles and small bales, care being taken not to entangle the hemp, shipped in small coasting vessels to Manila, and then screwed into the regular two hundred and eighty pound bales of commerce. The bulk of the product is then shipped to the United States; England, and other commercial countries, using comparatively little of this fiber in their cordage manufactories. Under favorable circumstances, the Phillipines will continue a sufficient supply for the ordinary demands of commerce, at rates not much varying from the present, as Americans being the largest buyers keep down competition, while care is taken by those in the trade not to let the rates to the producer recede so far as to check production.

We doubt our ability to produce this fiber in California, but if a new source of supply is ever sought, it will be found indigenous to the Caroline and portions of the Solomon's Islands, and in all probability in the mountains of the Eastern Archipelago, and doubtless, could be cultivated probably in Nicaragua and Central America. We may consider its manufacture domiciled with us, eventually to give us an inward and outward commerce, as well as employment to our laborers. At present, it affords a most valuable freight for the light lading of our sugar and coffee-ballasted vessels from Manila. In case war or other cause should temporarily stop its supply, the same manufactories could be used in the manufacture of the Sisal hemp of Central America, without much of alteration, except possibly in the carding machines. —*Alta.*

Soap, Oils, etc.

Any manufacture that has a foreign commerce in its connection will be more valuable to our progress than those which only supply our daily wants, without the addition of any movement of commerce in the way of import and export. An addition might be made to our soap manufactures, which would be a source of profit as well as the means of employment to our smaller vessels, and in time, an avenue of sale to some of the coarser products of our manufactories and workshops. The tropical isles of the Pacific abound with cocoa nuts, from which the natives are easily induced to manufacture cocoa nut oil; coarse cottons, calicos, hardware, tobacco, paint, bottles and trinkets generally, being the inducement held out for their labor.

To carry on this business with ease and at light cost, several small vessels should be engaged in it, under one company or ownership. A distribution of casks made among the native chiefs, where their authority is well established, but as some of the best oil producing groups are essentially republican, and in others the women have a small say in politics, and a good deal in business, it will be better to leave a clerk or youngster with the casks, taking care, in the last case, the beads and calico are the staple of his trade chest; while in the first case, a stipulation will probably be made for a certain amount of hardware or fire-arms when the casks are filled. Care should also be taken that where assistants are left, they should be natives of groups of islands distant from where the traffic is being made; this course prevents combination and treachery.

At the end of three or four months a call may be made for the full casks, leaving another supply of material and empty casks, at the same time taking on board any amount of pearl shells, beche-le-mer, ginger, tumeric, or other produce which may have been collected. In default of full lading, in some cases oranges, in others coarse mahogany may be taken on board to make out the voyage. Once here, the cocoa nut oil may be made into soap and candles for our own use and for export, as also available for manufactures and for machinery. We have before referred to this trade as one destined to be of value to our future commerce. From similar small beginnings the trade of Sumatra, Zanzibar and Madagascar have increased to the present enormous amount and value, and although, to us, these small rills of commerce may be but shadows, the commerce of the present almost unknown islands of the Pacific will be profitable realities tô our children. We may commence this commerce soon, to the benefit of our State, by combining its products with some branch of business already established, similar to the programme we have sketched above.—*Alta.*

Shoe and Leather Trade.

While the tanning of leather is pursued as a profitable business from Shasta to Santa Cruz, the manufacture of boots and shoes, except for special order, may be said not to have commenced with us. Our imports of these articles are large in proportion to our population, for our dry summers and the rough work of mining, cause quick consumption of sole leather. 1,800,000 pairs per annum we think not too large an estimate of our custom to the shoe trade, representing an aggregate of $5,000,000 in our yearly expenditure. The machinery of the shoe manufacture is now brought to such perfection, that much less hand labor is required in their manufacture than was the case a few years since, and now that California leather is produced in quality and abundance available to this trade, we look soon to the inauguration of a boot and shoe manufactory, holding in its results a sure future to the company that may invest in this great enterprise. For it is nearly certain that any style of manufacture in operation here which can meet the market at the same price as the imported article, soon achieves monopoly. Heretofore the manufacture of leather for harness, belting, &c., has most engaged the attention of our tanneries; sole and upper leather have had but slight attention; in fact, the desire heretofore to grow all our cattle to three year olds has not given a large supply of the finer skins.

This year there will be no difficulty in this matter, as more calves will probably be killed throughout the State than in any three years since '49; and as the salting of beef has become a regular feature in our trade, the hide business will, in the future, be more regular and extensive. There is a drawback to the value of Californian leather, even when well tanned, from the great number of brands on the cattle, and the carelessness of the butchers, who often clip the hide in using too much haste in the skinning process, rendering a straight cut of the leather, for harness or belt purposes, almost impossible. Too many, also, of the calf skins are spoiled from improper drying; in nearly all cases the salting of these light skins will be better and less expensive, than any attempt to dry.

It may be well also for our butchers to understand, that a moderately large lot of good calf skins will be worth much more at the tanneries than the small lots usually sent, as to procure first rate uppers a different process is necessary from what can be profitably applied in small lots. Our supply of tanning matter is abundant; the bark of the coast oak, the manzanita leaf and branch, the leaf of the holly oak and bark of the willow are all abundant in localties to afford us ready facilities for years to come. The leather business of California bids fair to large future increase—we have the whole Pacific coast and all its islands to supply with manufacture of leather; as civilization and commerce spreads over this ocean, the whole demand will be from California. The use of leather in all civilized countries is advancing faster than the supply of hides, it is therefore fair to suppose that California will have almost a monopoly of the Pacific trade, when her leather manufacturers are once able to compete with those from other States—distance, interest and freights will give us the advantage which secures a steady field for the adventure of this commerce from our own manufactories.

The falling off of the supplies of hides, of which shipments have been so bountifully supplied from the South American markets, has called some attention to substitutes for leather, without, however, as yet reaching such perfection as to lessen the price of a good article, which bids fair for many years to bear an advanced price. As our sale of cattle now are, a good hide is near ten per cent. of the value of the animal, it therefore behooves all those engaged in the cattle trade, to not only use care in their preservation, but to present their skins to the tanners free from the knife marks by which their value will be decreased when manufactured into leather.—*Alta.*

INDUSTRIAL INTERESTS.

The Drain of Capital from the Interior Cities to San Francisco.

Editors Union:—It appears to me a period has been reached in the progress of our State and city when it may be well to examine if we have in action the elements which have in part created our past prosperity, and which will accelerate our efforts of the next ten years that they may hold comparison with the past. I think it will be found that the falling off of agricultural profits is acting with a great deal of severity in the business of our river cities, which, with the changes which are made in mining localities and consequent business, makes our trade and progress more uncertain than is necessary with the broad field open to industry and enterprise; not that we have lacked either of these qualities, but as circumstances have been, their efforts have not met in all cases with sufficient reward; for with the second great industrial interest of the State in an unprofitable condition to its followers, all other trades and intersts must more or less suffer with them.

I think it will also be found that the tendency of our capital is to accumulate almost entirely in San Francisco, leaving but little in the other cities, not only detrimental to them from lack of concentrated capital, but from the superior value it gives to what are called securities in that city, and the lessened comparative rate of interest in which capital can be obtained on them over securities elsewhere in the State. We also find the Bay city absorbing every embryo manufacturing enterprise which interest is already sufficiently large to exert an attractive power on every enterprise of that description, to so great an effect that San Francisco bids fair to be the manufacturing center, as well as commercial depot, of the State. At present this attraction is in reality but that of capital and superior command of labor: location, and ease with which raw production can be commanded, are in favor of the river cities. It is not for our interest to let the Bay city absorb entirely this great element of wealth and prosperity, if we can by legitimate business enterprise avoid it; and it is not for the interest of the State's future wealth and prosperity that more than our commercial interests should be exposed to any of the vicissitudes which foreign war may bring upon that city. In war her harbor will be the first and greatest prize sought by an enemy's fleet, and as there is seemingly a persistent effort on the part of the majority of the San Francisco press and population to stop the proper fortification of the State's best harbor, such attack is so far invited. It is not well that many interests are there concentrated whose destruction would cause great loss to other parts of the State. This is preëminently the case in regard to manufacturing enterprises based on the raw product of our fields. It is therefore not the interest of the agriculturists, or the consumers of their products after manufacture, or that of the inland cities, that San Francisco should absorb the manufacturing interests of the State.

The questions now arise, how shall we check the depression in our own business caused by that of the agricultural, to check the drain of capital and business from our inland cities to that of the bay, and place our own business prosperity on a firmer basis than that on which it now rests. I think these points may all be arrived at. The same energy, public spirit and will that have carried our city through the calamities brought on us by fire and flood, will enable us to make these further efforts necessary to insure our city's permanent prosperity.

If our agriculturists can be induced to turn in part their attention to those crops which permit after-manufacture, and we make the home of those manufactures in our own city, we arrive at once at a business which enlivens the agricultural interest, calls population and business to our city and chains capital to us. The moment we build up a manufacturing interest in our city, we make a local interest in capital investment, a regular call for labor, a demand for real estate, and a concentration of all the raw product of the surrounding country. We become a larger distributing point in the commercial interests of the State, with a prosperity which in peace or war would be comparatively unchecked. The same interests which in case of the bombardment of San Francisco would be destroyed, would be unharmed with us. Although from long peace we have ceased to make these contingencies a subject of business calculations, present events show us their necessity, and must have their weight in any permanent investment of capital. Surrounded as our river cities are with lands which will readily produce the great staples of manufactures and commerce, there is no reason which a combination of capital with industry will not solve, why the manufactures of wool, flax, cotton, sugar, tobacco, etc., should not be located with us, and add not only to our wealth and progress, but to that of the State.

The Value of Diversified Agricultural Products to our Inland Cities.

Editors Union:—In my last letter I referred to the great value to our city business which prosperity among our farming population would create. I think there are none who have given the subject thought, who believe this prosperity will be arrived at by a continuation of efforts applied wholly to cereal crops. Thanks to the painstaking enterprise of some of our citizens, the culture of hops and tobacco have been introduced successfully, and doubtless the culture of these productions will now rapidly increase. But these products alone are not sufficient to give all the necessary impulse and profit to our agriculture, which in its present state of depression will afford an opportunity of remunerative employment to all directly engaged in this vocation, as well as those whose business is indirectly connected with its prosperity.

To those who have not bestowed much thought on the difficulties which beset the California agriculturist, it is easy to say "farm less land and farm better, use manure and fallow crops, and raise larger crops to the acre"—forgetting all the while the grand difficulty lies in the cost of these appliances. With the whole farming or planting season concentrated between November and March, it is difficult to arrange green crops for manure, or a fallow crop or naked fallow, that does not involve a loss of the use of the land as well as labor for the year. Ours is a State of high labor values, as well as of high taxes and interest, which compels the agriculturist to find a paying fallow or intermediate crop, which is not in all localities easily done, and is, in reality, the main and most serious difficulty in the success and profits of California farming.

The planting of flax as a clearing crop might be introduced with great value to our farmers and the community, if simultaneous with its cultivation, mills could be erected for the manufacture of burlaps, and others for the manufacture of linseed oil. Both these operations could be started with but small outlay of capital—sixteen to twenty thousand dollars would buy the machinery of the first, and one-fourth the sum afford a fair start to the other.

The cultivation of the beet root might make another clearing or intermediate crop, if a sugar manufactory were started in the vicinity. This would take more capital, but there is no end to the local benefits such an institution would create. The culture of the Chinese sugar-cane would follow that of the beet root, and experiment would not cease until a variety of sugar-cane was found capable of acclimature to the Sacramento Valley.

Our wool crop should be made to afford us more home profit; its fiber should be twisted before it leaves the levee, combined with flax, perhaps with cotton; it is now sent too far away, to be brought back to us with all the added costs of transport after manufacture, when we can make good cloths, blankets and carpets for ourselves. This operation is now stripped of all features of experiment; its profit and the market for its manufactures is certain. The introduction of its manufacture here adds the dye stuff crop to the farmer's business, gives him another staple for a product, and adds to the value of his flax crop.

We export our hides, when there is no lack of tanning matter on every hill in our country. We pay others for making our shoes and boots, when their manufacture can be so far accomplished by machinery that our high rates of labor need not prevent their manufacture here. Is there any reason why these manufactures cannot be introduced and made profitable in our city, surrounded as we are by the lands which best produce the raw material of their use? Why may we not secure the benefits, the business, and make a portion of it a home here before it follows the manufactures now started into life in San Francisco? The wool clip is available now. Promise our farmers a home market for their flax seed and fiber, and acres of it would be planted. Promise them a near market for their syrup, and the beet root and sorghum would at once become the staples of their crop. Make a market here for the refuse of the herd by manufactories, and none would die on our plains for want of care or shelter. Low priced, bulky products are difficult for us to export with profit. We can manufacture them here with advantage to their producers, and double advantage to ourselves, and add the capital to our city's wealth. Such manufactures and the consequent increase of population their business would give us, and we should lay the foundations of a business which would increase with the growth of our own and the adjoining States, and when spread out beyond the home market, find openings sufficient in every port on the Pacific for interchange of some of our products.

In a State like our own, where capital in large sums cannot be well spared by individuals, joint stock operations are almost a necessity at the outset of manufacturing enterprise, for it is too often the case that the parties possessing the necessary skill and knowledge have not the capital, consequently have not the necessary securities to offer, and enterprise remains dormant. Associated capital appears the readiest means to overcome this difficulty, and give our city and county its benefits.

The Culture of Cotton, and the Value of the Tree Cotton to California.

Editors Union: In my last letter I mentioned the manufacture of wool and cotton combined. Although our wool is yearly increasing in abundance, and improving in staple, there has been no positive effort to introduce the cotton culture. There are two ways in which we may have cotton: by production and importation. If importation is necessary, we can have cheap cotton from the Yanz-tse-kiang and Peru now, and in the future from Mexico and the South Sea Islands. If we can produce it, the questions of where and in what manner deserve full consideration before investment. Admitting the full force of your reasoning, in a late number of your paper, as to the expense attendant on its introduction if slave culture is adopted, I am inclined to think the same reasons will not hold good against its culture in the tree form. The California farmers have not very closely followed rule and precedent in regard to their crops, and our orchardists have found it necessary to depart from all previous rule, and accommodate their plantations to the changed circumstances of soil, climate and labor.

I think the cotton tree, planted in California orchard form, and cultivated as our orchards are cultivated, will flourish through all the Sacramento Valley. The cotton tree of the South Sea Islands grows to about the size and shape of an eight-year old Bellflower apple tree, and is covered with its snowy white crop in, I think, the months of June and July, the mid-winter of that part of the world. The trees have the appearance of age, and come into bearing when half-grown. The samples of cotton carried to the Manchester Exhibition from the Fejee Islands were considesed the best shown, and rated at twenty-seven cents. The cotton tree found among the mountains of Peru is similar in appearance, but not of so good quality. There are some reasons, however, for believing it is one and the same plant, with the difference in staple and quality which soil and climate have made. R. C. Kendall, in a lecture before the Cooper Institute, states "he has cultivated the Peruvian cotton with success in Northern Maryland, and that it will grow wherever Indian corn will grow;" states the "yield to be 2,000 pounds to the acre, produces its crop the third year, and reaches its growth in seven years." Have we not in these cotton trees a means available to permit our culture of cotton even with our present available labor? Mr. Kendall further states, "that after twenty years experience, that soil has more to do with success in cotton culture than climate." We have facts in corroboration of this to show its ready acclimation and adaptation to a low range of temperature. In our own country, the seed of Egypt and Surinam, and later of Mexico, readily acclimated; and we find its culture successful in Corea, Central China and Northern India, where the extremes are greater than in any climate in the neighborhood of San Francisco bay. It hybridizes readily, as good planters keep up the quality of their crop by planting with their ordinary seed some rows of better cotton. We can readily obtain both seed and plant from Peru, which is a cotton good enough for all our present purposes. We can also obtain the plants or seed from Tahiti, and in time the seed from Fejee, which produces a staple equal to that of Sea Island. The Peruvian cotton will stand frost; the other we must experiment on, and gradually accustom it to our climate. In this I do not apprehend great difficulty, for there are often very cold nights at the altitude in which it grows.

Planting in orchard form does away with a large share of expense and risk in its cultivation, bringing the picking to be the main labor and expense of the crop—one hand to twenty-five acres being sufficient for the balance of the year. For all present purposes of our own manufacture, a rapid mode of picking might be introduced in our dry climate. As the fruit of each tree will ripen even, a ready mode might be found to rake it from their tops into sacks, and as cheaper labor is afforded in time more care might be used.

If the ideas I have here advanced are correct, in their fruition they would solve several important points for our interest: a regular staple of production in a profitable form, which would give new business for our farmers, manufactures for our cities, commerce to our ships, and employment, that will not interfere with white labor, for our Chinese emigration. Sacramento and Stockton are more interested in the correctness of these conclusions than any other points in the State. Personally, I have faith in their correctness. Having long had knowledge of the value of the South Sea Island cotton tree, it was with pleasure I read in Kendall's report on the Peruvian tree a corroboration of my own views. The question is now, in what mode to best arrive at a test to the question, if cotton can be grown here to advantage? A legislative appropriation in favor of the first one hundred or the first thousand bales, would soon make it a public matter that would bring forth good fruits to our State and city. To keep up our progress the next ten years to the same ratio as the past, to render the State's agriculture profitable and desirable to immigration, to create a business for our city, to concentrate her capital and population, no means so ready or effectual as the introduction of home manufactures

The Development of our Industrial Interests should be the Policy of our State.

Editors Union:—As our State, from geographical situation, is by itself and of necessity obliged to rely on its own production, or pay largely for any outside aid that may be received, the speedy development of our resources is a matter of such necessity that any legislation tending to this result, is a measure of the highest wisdom.

During the last ten years, although the statutes of California have become voluminous, there are not many which directly point to the development of the industrial interests of the State. Although those we have are to the purpose, they are insufficient without further judicious legislation to cover the large field which the capacity of our production requires. With a sweep of territory which embraces a capability of all the productions of the temperate zone, and many of those of the tropics; with a breadth of mining resources which is yet incalculable in value, with a commerce opening out to us as expansive as the ocean swell which thunders on our coasts, our State's policy should be comprehensive, far-seeing and grand, as the interests which are confided to the care of our Legislature.

The development of our State's industrial resources should be the prominent feature of our policy; through whatever changes of men or party that for a time have control of our State Government, this should be its foremost feature and interest; having the best mind and judgment in the State devoted to its accomplishment, and legislative enactment in its favor of such comprehensive character as will the best achieve this desirable result.

It is not enough to say, "our progress is great—no people ever made more in the same time;" for we have only done what might have been reasonably expected of a population entirely made up of young and energetic men; for never before was the industrial army of any country composed of such material, and it is for this very reason that our State's legislation should be different from, and more comprehensive in its character, than that of any other State of the Union.

While our market was within ourselves, while our production was only sufficient for our own consumption, until our surplus was obliged to seek other markets whose standard values are graded by low rates of labor and a paper currency, active legislation for the State's material interests had not the necessity that now exists for its inauguration. We have reached a time when the very energy and industry of our people is working injury to themselves, in the over-production of articles which cannot be always exported with profit to the producer; and when sent from our shores at his loss, are a loss to the State, in so much taken from its fertility and richness without adequate return. We have had too much of this already; the seal of bankruptcy has rewarded too much of agricultural effort, and too much of our gold has gone forth to pay paper money prices for what we might have and may produce for ourselves.

Wise legislation will check this current from our shores, and avert the evils which are in store for the second great interest of our State, the main pillar of its Government support, and the interest which attracts the immigrant and skilled artisan to our shores, and which in its incipient efforts has astonished the world with the extent and prolific nature of our productions. The end and purpose of all government should be the good of the people, to guide and aid them to those vocations which are to their own and the State's best interest. Our people generally need but little guidance, but just now the State's aid may be made a great means of avoiding the disasters which are pressing upon one great source of the State's wealth now, and of adding to that wealth largely in the hereafter.

Our first legislators would have required superhuman wisdom to have seen the full effect of their early and constitutional enactments on a people constituted as the mass of our population, and isolated from all others. They had neither history nor precedent to guide them, and we may well be thankful that, in the exciting days of early legislation, men were found to frame a State Constitution as faultless as our own. None could then foresee that ten years of our history would pass, and that, while making unexampled progressive development, the rates of interest would rule higher than in any other civilized country; that capital would almost entirely concentrate in the largest city, and that the active currency of the country would be then too limited for general business purposes. Yet had they foreseen that we should continue to pay our hard coin for the paper and credit-priced productions of other States, they would have known this result inevitable, and made the encouragement of home production a cardinal feature of State policy, if not of constitutional enactment." We here have the pith of the whole matter. Stop the flow outward of our gold for goods, and money becomes plenty. The means to arrive at this result is such legislative enactment as will at once encourage the production of all those crops which are susceptible of after manufacture, and the encouragement of the erection of every manufacture within the compass of our production. Do this, and our agricultural interest will receive a permanent improvement, our material wealth will double, and our commerce will increase, each day giving new markets for our products and new wealth to our production.

Individual enterprise has done much, and will do more; but it must be a matter of judicious legislation now to lighten the depression which reigns in the agricultural counties, and through them add new life and scope to the general business interests of the State. With a Legislature whose election has been a matter more of patriotism than of party, we may rightly expect liberal and comprehensive statemanship; and if a policy looking to the speedy development of the State's industrial interests is inaugurated in the session of 1862, it will be long remembered as the most beneficent that has ruled the interests of California.

The Cultivation of Tree Cotton.

Editors Union:—I have noticed several comments on my communication in reference to the cultivation of *tree cotton in orchard form* in the valley of the Sacramento. The gist of them all is embraced in the comment: "This may all be true, but if so, why has it not been thought of before?"

The cotton of Peru has been known since the Conquest. The present yearly export is about six thousand bales; fifteen hundred bales were sent across the Isthmus to England last year. The mills at Tepic, on this coast, have for many years derived part of their supply from Peru. Mr. Kendall, whom I gave as my authority for its adaptability to culture in the United States, delivered his lecture before the Cooper Institute, at the request of Governor Sprague, of Rhode Island, Banks, of Massachusetts, and other gentlemen engaged in Northern manufactures—seemingly sufficient indorsement of Mr. Kendall—all going to show that its culture has not been adopted, not from want of knowledge, but from want of incitement; but as there is no lack of interest in cotton culture now, we shall probably soon hear more from it.

In regard to cotton from the South Sea Islands, its value has been known to the writer some twenty years; has been known to our Government since the return of Wilkes' exploring expedition, and to the British Government a somewhat less time. The following extract from the report of the Cotton Supply Association, shows the value of the fiber:

The Fejee Islands.—The Committee have received through the Foreign Office five descriptions of indigenous cotton, which are reported by Consul Pritchard to grow wild in these Islands. The plant yields without intermission for ten, twelve or fifteen years. The value of the several samples are 7d., 7½d., 8d., 9d., 11d., 1s. and 1s. 0½d. per pound. About eighty to one hundred of these islands are inhabited, the total population being 200,000, 50,000 of whom have been converted to Christianity. One-half the area of one of these islands would grow three to four millions of bales of cotton. In view of these facts, and being informed that an offer had been made by the native King and Chiefs of the cession of these islands to the British Crown, the Committee felt it to be their duty to represent to her Majesty's Government the suitability of the native Fejee cotton to the wants of trade. The question of annexation was one into which it was not in the province of the Committee to enter. It was, nevertheless, their obvious duty in the interest of the cotton trade, and in view of a faithful discharge of their duty as your executive, to see that a just representation should be made of the utility of such an addition to our sources of supply. From no single quarter of the world has such a collection of graduated qualities been received.

Even this report did not call forth a movement to its culture, though scarce 1800 miles from England's Australian colonies. But the excitement in the United States, particularly in Virginia, in regard to the John Brown raid, furnished the stimulant; a military officer was sent to Fejee to report as to their susceptibility of defense; this gentleman was accompanied by an agent of the Cotton Supply Association.

The result of this commission has been, that a portion of the islands have been purchased by the British Government. Cotton gins have been erected at Rewei and other parts of these islands, and the first fruits of this enterprise have been lately noticed in a shipment of cotton from Fejee via New Zealand to Great Britain.

The attention of Californians was first drawn to it by an article, I think, in the *Alta Callfornia* some ten years since, showing it as one of the means which would eventually create a valuable commerce with the islands of the Pacific. That point is reached, England has become alive to the value of this production, so near her Australian colonies, and with her readiness to further her commercial and colonial interests, but a few years will elapse before the South Sea Island product will be a feature of the cotton trade.

The suggestion to cultivate in orchard form occurred while seeking for argument to show cotton culture here was within the scope of our tariff labor. To those with whom no suggestion is valuable until backed up by age and precedent, the statement above made will carry some relief. Personally, I have faith that in this or similar methods, we have a key to successful California cotton culture. I trust the "press" of this State may take sufficient interest in the subject to keep it before the people, until means are devised to make its introduction and culture one of the material facts in our State's progress.

The Chinese Question as Connected with our Industrial Interests.

Messrs. Editors:—Our citizens have been so much occupied with the damage the flood has brought to their doors, that a scheme to deprive our city of a portion of our present, and more of our prospective business, has seemingly escaped their attention.

The project to sweep the Chinese entirely from our State, has, like all other public questions, two sides to it; and those who are so earnest to send them from the State, that they may not interfere with white men, appear to forget and ignore the existence of *the many white men and their business interests which profit by their presence.*

It is difficult to arrive at a correct estimate of the amount of business they make for our people, but in a rough way, perhaps one-sixth of all our freighting, boating, teaming and staging may be made by them, while their purchases of goods, clothing, etc., may possibly be equal to one-twelfth of the trade. Their value to the ranchmen may be better estimated. If the 55,000 of them in the State spend but two short bits a day each for their pork, beef, vegetables and other food, the sum will amount to $77,000 per week, or $4,000,000 per year—an amount in itself a very handsome income to our rancheros, and more than they received for their whole export of grain and flour last year.

Now very few Chinamen are employed on the ranches, except as cooks; and if we except those employed in some vineyards, probably not over five hundred have even that employment on farms in the whole State. Therefore, the whole of this amount of $4,000,000, more or less, is the product of the labor of white men. A large portion of what they consume would not be produced but for their custom, particularly the vegetable crops, and also those corn crops grown in places far off from market and fed to hogs and cattle before killing. Now the question is, can our ranchmen afford to lose this business? Can our laborers, teamsters, freighters, etc., afford to lose the amount of employment this business gives to them? Can we afford to lose the business, direct and indirect, it gives our city? Can our merchants afford to have the ranchmen impoverished to the amount of the loss of this trade? All these are important questions to answer; they relate to the present, and come home to our every day business.

Next, in regard to the future of our city. In a series of articles written before the flood, I endeavored to show the necessity that existed that we should encourage home manufactures to make business and capital for our city, and give the diversity of culture to the surrounding country that should be more profitable to our farmers than grain-raising exclusively had been. Every argument then used has far more force now; and the ways and means to bring about this result should occupy some portion of the thoughts of every business man and property-holder of our city, and every ranchman on our plains.

It must be patent to those who have given the subject the slightest thought or attention, that these cultures cannot be made—that these manufactures cannot be started—without the possession in some of the stages of production of an abundant, steady, womanlike labor that a special Providence has given us in the presence of the Asiatic.

The question now is, shall our ranchmen be deprived of their present market, and with it also the opportunity of these changes, and increase of production, a sad and ruinous experience has shown to be necessary? Shall the transport, trading and commercial business of the State, not only lose that portion of their present occupation now afforded them by the presence of the Chinese, with all the produce their labor properly directed would afford the industrial energies of our people, but can we afford to lose from our cities, not only the present, but also these prospective benefits? For lost to us, years must elapse before we will have the command of a labor force of a description that will warrant investment of capital in any enterprise that demands an attendance of moderate priced labor in any portion of its details.

Next, we are called upon to give up the present and prospective benefits to our people and State, because the Chinese are willing to cook, wash and be scavengers; to hoe grapes and pick berries for five dollars less per month than a white man? (for outside the mines this appears to be a short view of the difficulty and the amount of their competition with white labor). The objection in regard to their females being here must rest with our own people, as the Chinese are not in the habit of taking them abroad. In and about Manila there are more than one hundred thousand Chinese laborers, free emigrants, and but few or none of their women.

Is this cause enough, or are these causes enough to warrant our being deprived of these present and prospective benefits?

It appears to me there are no sufficient reasons why they should be driven from the State. Taxed in the mines they should be; beyond this, neither policy nor propriety calls for legislative interference in the business arrangements of our people. They now give employment to nearly one-sixth of the white laborers in the State, outside the mines; and they may be made, by judicious application of their services, to make a five-fold increase in every material interest and commercial enterprise of our people.

Force them out, and much of present labor enterprise must be checked and seriously injured; the agricultural interest must go backward, for we cannot continuously grow grain only; and our river cities be content with the divided business which the mines and the impoverished rancheros can afford them, until many years are added to the age of the present active men of California.

OUR LABOR INTERESTS.

The Value of Joint Stock Labor Associations.

Editors Morning Call :—Permit me through your columns to call attention of some of our friends of the mechanical persuasion to the value of joint stock labor investments, in this country where capital and labor rule higher than in any other. Capital connected with combined labor can achieve profitably what capital alone cannot. As the miner's wages and earnings are the point below which the value of labor will not readily recede, the capitalist cannot, nor will not for years be able to hire labor at a sufficiently cheap rate to compete with imported fabrics in many articles which might easily be manufactured here with profit and benefit to our State. It is for this reason that more manufactures are not started here—the capitalist would have to pay too high rates for the necessary labor to afford him any interest on the capital invested. This drawback and risk to the capitalist alone, is a direct premium where labor and capital are combined in a joint stock arrangement for any one productive or manufacturing business. What would not pay the capitalist alone interest, comparative with other investments, would give the worker fair and steady wages, and a moderate interest on first capital invested, as well as the constant accumulation of capital which success would give. From the peculiarity of our position and distance from all sources of manufacturing supply, freights, time, interest, insurance and commission, act like a tariff or direct premium on the products of California industry, for the moment such perfection is reached in any one manufacture that it can compete in the market with the imported, with all these charges added, virtual monopoly is achieved for the California article. This warrants success to every California effort of manufacture persisted in long enough to be felt in the market against the imported, and is the element of success, the leverage which will eventually make us a first-class manufacturing State. This position will be achieved, not by capitalists, but by associations of mechanics and laborers, working in a partnership of united capital and combined labor. Single, each would struggle long in unrequited toil; united, and strength enough is elicited to defy the world's competition. We have among us the necessary science, strength, mechanical skill and genius to accomplish any effort to which the will may be bent; it only needs direction. There is scope enough in our home wants and home market for thousands of workers; there is promise enough in the market the coasts of the Pacific present to us for millions. For the reasons above given, this country is preëminently adapted to joint stock speculations of labor and capital. In other countries of abundant capital and low rates of interest, such operations would be crippled and baffled by masses of capital united against them; this cannot be the case here. Labor backed by the mines, is and long will be the controlling element, interposing inseparable difficulties in the application of capital alone to manufacturing operations. We will take, for instance, the manufacture of flax, and the only suggestion I will make for the present, and see the employment the manufacture of grain sacks alone would give in this connection. The cost of imported machinery would be trifling in consideration of the magnitude of the interest involved; all else could be reached by combined labor. Let it be known a mill would be erected for the manufacture of the flax fiber, and its cultivation for this purpose and for oil would be immediately commenced. The fact of starting this one operation would give birth to numerous others, giving enlarged employment to labor, and lands now unproductive of interest, benefiting not only the mechanic and laborer but the cause of agriculture.

What the Labor Forces of our State may Accomplish.

Editors Call:—In my last communication in reference to "Joint Stock Labor Associations," and their value as a source of gainful employment to individuals, as well as a power in opening up the resources of the State, I mentioned the manufacture of flax as one of the articles on which a labor operation might be profitably based. As perhaps first thought in this reference may not show how much of a business this might be made, as well as how small an amount of capital would be needed in the commencement, with your permission I will follow the subject a little further, trusting that some other of your correspondents may show the value of some of these operations, to which you in your editorial have referred. In round numbers, California raises 5,000,000 bushels of wheat, and the same number of bushels of barley per annum, giving a total of 550,000,000 of pounds, to nearly every one hundred pounds of which a sack is required, or a total of say 6,800,000 yards of some material in this one item, which at eight cents per yard, gives a business of $544,000 per year for the material used in the handling of this one product. Besides this call for sacks, we have that for corn, potatoes, peas, beans, wool and ore. There is also a call for sacks in the commerce of this coast and of the Pacific, which will offset any second hand use of sacks, making $600,000 per year as the cost to California of this one import, and one which she has the material to manufacture within her own productions. Machines for a mill which would not only manufacture bagging, but nearly all the coarse flax fabrics we require, could be obtained at this time in the Atlantic States for, say $36,000. Now, as one-third the amount would cover machinery for a very respectable manufactory, and go far in the manufacture of bagging, that would be enough to start on. As times are, this could be bought for one-half cash, the balance secured on the machinery; now add site, building, freight and power, whether of water or steam, and you have the outlay. If joint stock, the ground, lumber, carpenters' work and power, all could be contributed. The next cash outlay after the purchase of machinery and freight, would be the raw material on which to work. If flaxseed is raised for oil, the stalk is of small value to the farmer, and as our agriculturists are just now eager for any product which will pay them better than grain, no difficulty will exist in procuring the flax fiber. The method of cottonizing flax by pressure and explosion of stem, has been so far successful that four to five cents per pound is calculated as the price of this article in New England, only one difficulty being now in the way of daily use of this material, and that is the separation of the "short" from the "long" pile—a difficulty now I think in the way of all coarse manufactures. The mill once erected, is not confined to this one material or manufacture. Carpets of mixed flax and cotton and wool would take the place of the coarser material now imported. With our wool product all are familiar, and my belief is the day is not distant when, in some measure, we shall all be familiar with cotton as a California product. The samples of cotton brought from Visalia show no lack either in soil or climate—all that is wanted is labor and capital in its production. If this cannot be applied profitably, there will still be no lack of cotton, for it can be imported from Central China at a much less rate than the ruling price of the last few years of the most common American cotton. All that is wanted, then, is the introduction of the cotton-gin, to give us all the raw cotton required. The true way would be to ship spars and lumber to China, the vessels returning with cotton, to be manufactured and again reshipped. We will then have commerce, home manufactures and home production combined, giving profitable employment to many people, in many different branches of business, brought about by persistent and united mechanical effort in achieving the first step. We want but a small manufactory commenced to secure to ourselves the whole labor and production as well as profit which is involved in the coarse manufactures consumed so liberally by our people, to make a business here for which capital is now sent away and lost to the State—a benefit not only to those engaged immediately in their manufacture, but also to the whole State, in giving new impetus and variety to our agriculture.

Business which will Accrue to California from the Opening of the Chinese Rivers.

Editors Call:—Any branch of labor in our State that is connected with commerce, export or foreign market, is more valuable both to the State and individuals than a production whose market is limited to our own borders. In my letter number two, I referred to a trade which might be made with China by the export of spars and lumber, of which we have abundance, and they comparatively a scarcity, to be used as a remittance by which to obtain some of their raw productions for after-manufacture here. If bare cost and freight can be made on the lumber it is a profit to the State and shipowner, for the State barters a product which has given employment to one class of laborers for another product which will give employment to another class of laborers; to the shipowner it is a benefit in freight earned, and to the merchant in the cost of a bullion remittance saved. But there is other trade and labor in this connection which is well worth our looking after to have a share while it is in our power; for in all business the parties in the trade have advantage over the new comer, and as in the commerce and traffic now springing up in the heart of China, we have an interest from our nearness and ability to supply much that is there wanted, it will be well for our machinists, ship builders, lumber and founderymen to watch the developments of business now making in that country. The valleys drained by the great rivers of China are second only in extent to the waters of the Mississippi and Amazon, and have the elements of commerce, business and wealth, second only to the commercial interest of the Mississippi. Steam only can develop this interest, and that by a class of boats which we, from situation, knowledge and material are well qualified to build. Our competitors are wooden boats sent out from the Atlantic States, and iron boats sent out from England. Numbers are now on the way out to the Yang-tse-Kiang from both places, and there is no seeming reason why the investment will not be a great commercial success. The coal mines at Hankow, six hundred miles up the Yang-tse, are in a most fortunate position for the full development of the trade of that river. Explorations are now being made to ascertain the full extent of the steam navigation which the late Chinese treaties have opened to the enterprise and business of civilized nations, and it is for the interest of California that we should reap some of the benefits of the immense commerce destined to grow out of these movements. There is another opportunity for joint stock labor and capital associated. The need is flat bottomed wooden steamers, large and with side wheels, for the Yang-tse, and stern wheelers for the tributaries. They can be built here, loaded with lumber, and at the proper season sailed across. If not easy to build all the machinery here, arrangements might be made so that a portion of it might be sent from England or the United States. A uniform class of boats might be built, for which not only the same machinery might answer, but also the same sails, which would thus serve for the out passage of more than one boat. A similar course to that indicated above, would very greatly lessen the risk as well as increase the profits of the adventure. If a large class of boats of uniform size were built, in case of partial wreck, the machinery would do for another hull without any change whatever, and the same with the smaller boats. A model might be selected for each, which could be safely sailed across an ocean which at certain seasons affords fair wind. This business is no dream of the dim distant future, but a matter of the moment. The skilled laborers of the Pacific coast have only to give this subject attention, to see what a prize of steady profitable business is within their grasp. The enterprise, industry, and skill that has done so much, have only to understand the value of this trade, and our ability to share in all its benefits and profits, to give to our State the population and increased number of consumers so desirable for the benefit of our agriculture.

The Power Joint Stock Association would give the Labor Interests of San Francisco.

Editors Morning Call:—The great money-power which laboring men wield is hardly appreciated by them. A combination of individual effort and capital for the transaction of business should be the rule, not the exception. However small the cash capital with which a labor association is endowed at the outset, if a portion of the weekly wages or earnings is added to its strenth, the accumulation of its capital will be made faster than any profit can be made on capital invested without the labor partnership. From the building of the Tower of Babel to the works in our Northern mines, combined labor has accomplished feats to which capital alone, with all its strength, is unequal. Even the cotton operatives of Great Britain, against the pressure of low wages and very low current rates of interest, have combined their earnings and labor, and the erection of many a cotton factory in Lancashire, during the past five years, attests this power and ability. The movement now making to establish a Saving Fund, to be used only in forwarding the humble efforts and small beginnings of combined labor, if successful, is a stride toward making our State, in our own time, the center and seat of manufactures for the whole Pacific. Sweep all its coasts, from Cape Horn to Behrings Straits, back again to New Holland; reckon all its islands and countless population, and see if there is a locality which combines the elements of soil, climate, water-power and production possessed by the American future of the Pacific coast; where else the people who combine the necessary elements of skill, industry and energy, with the security which equal laws and good government afford? Australia alone can be thought of, and were all other advantages with her as with us—and they are not—locality alone would decide the question in our favor. Our skilled labor has only to combine and commence—the success, the extent of the market for their manufactures is certain; its profit unmistakable. Push forward your Society. If each mechanic and laborer of San Francisco contributes on the average but twenty-five cents per week, its capital at the end of each year will not be far from $250,000; if one dollar per week is contributed, the year's accumulation of capital will be something over one million of dollars. That sum judiciously used in backing labor enterprises will in three years, with its accumulations, double the avenues of employment of skilled labor in our State. The Penny Banks established in England are remarkable examples of the amount of capital that can be accumulated from small savings; and however small the sum each mechanic will resolve weekly to contribute, the aggregates entered on their pass-books will secure capital sufficient for the object of the enterprise. Let its directors plan the scheme with a double object—not only for the furtherance of mechanical effort, but to encourage the savings of small sums. Men who begin to save are seldom in need; encourage our boys to take an interest by their little deposits, and the habit will not leave them; their little pass-books, if they show but "bit" items, will be an encouragement of economical business efforts to them. Our young Californians need all the wholesome checks we can throw around them; from them the men of this coast are to be made, and every good impulse we can use to bend their energies in a right direction is a necessity to our future prosperity and good government. In whatever light the movements toward joint stock labor and loan associations can be viewed, it is only that of benefit to individuals and to the community. "Call" close attention among your readers to this subject; set forth its advantages in their true and most varied light, and I doubt not the increase of mechanical labor and population in our State will be great enough to use up all the surplus products of our agriculture.

What Associated Labor has Accomplished.

Editors Morning Call:—In view of the movement making to establish a Loan Association for the development of mechanical and manufacturing industry, working men may as well take into consideration not only their power to help themselves, but also the necessity that exists that they should carefully plan for such a state of affairs as will ensure them good wages and steady employment in the future. I think reasonable doubt may be felt whether capitalists will be, for years, ready to invest in very many enterprises that would pay and be remunerative to the workmen if the capital were also theirs. The capitalists will be likely to wait until the pressure of labor applicants in every avenue of employment now open has reduced the general wages of all classes of labor to a scale far lower than the present, before any manufacture that requires a large employment of hired labor will be ventured upon by them. Such being the case, the workers of our State can not only provide against the inevitable tendency to lessen wages, which every fresh applicant for present employment exerts, but also to open such avenues of occupation as will for years make useful the surplus of emigrants, so that their desire of employment will not too far interfere with workingmen's interests. The easiest, in fact the only way to achieve this result, is to provide such employments, such manufactures or production as have not only a Californian, but an outside market, which will render such business operation, under whatever pressure of competition, comparatively safe. The Loan Associations, properly managed, will achieve this result, and no partnership of industrious, skilful workingmen need despair or hesitate in the manufacture of any article necessary to our daily wants, even if such help be not afforded them; current rates of interest on capital, as well as distance from all other sources of supply, are in themselves a premium on their industry which will ensure a profitable result. If in England, under the pressure of immense capital, skill and science in manufactures, carried to its utmost limits, workingmen can combine together and manufacture on their own account, not only to make wages but to secure handsome profits beyond them, how much more may be expected in a country of such high wages and limited manufacturing facilities, as in California. The success of the "Rochdale Association," a pioneer joint stock labor society, is an example to which our Californian mechanics should give earnest attention. The association was established in 1844 with a capital of $140. The first year the associates divided $160. In 1857 the capital amounted to $75,710 and their division of profits $27,350, or near thirty-six per cent. on the capital after all expenses were paid. Now, as before said, if such result is arrived at where competition in manufacture is pushed to its utmost, where low prices of labor, abundance of capital and low rates of interest rule, what may not be done in a country where there is no competition and where labor and interest are higher than in any other country on earth? Combine your mechanical skill, make yourselves strong by a partnership of intelligence, leave a portion of each week's earnings in the concern as capital, and who can doubt the success of the effort, the influence you will exert, or the wealth you will acquire? It is for the workingmen of California to say if she shall in the next ten years take a front rank as a manufacturing State. It is for the farmers of this State to make their own market for their productions. Let them but make it a fixed rule only to buy and only to use the manufactures and productions of our own workmen, and their home market for surplus production will bring profit to every branch of agriculture.

Will the Prosperity of the California Workingmen Continue?

Editors Call:—For ten years the workingmen of this State have received a remuneration for their labor unexampled in the history of any other country. It is important that some consideration should be given the present circumstances of the State to form some estimate of how long this prosperity to the workingman may be continued. The result of this ten years' labor and progress is that the prices of every article necessary to daily life and consumption have fallen below that of most any other civilized country, and in fact nothing has maintained its high rate but labor and interest. The present prosperity of the workingman throughout our city, from the amount of employment extensive building is giving, may keep them for a time from looking beyond the city for the changes in their business either for better or worse. But as the prosperity of the city is dependent on that of the country, the distress now affecting the agricultural and pasturing counties must soon affect them. It will be first felt in a lessened call for, and a lessened value of, labor throughout all the agricultural counties, forcing more applicants on other sources of employment; next, the falling off of the city business, from the absolute poverty of the agricultural and cow counties, will lessen business and the demand for stores, buildings, labor, etc., here. Our State population is so small that the difference between one hundred thousand of our inhabitants being liberal buyers, and the same number reduced to the purchase only of those articles which absolute necessity requires, can but have an injurious effect on the business and consequent call for labor of all kinds throughout our city. The agriculturists and stockmen of the State are as a class becoming too much impoverished to employ the amount of labor which has been their custom for the last few years, and from sheer inability cannot be as good customers to the city. First the mines and next the agricultural districts have been not only the points which have fixed the standard value of labor, but have been also the reservoirs that have swallowed up the surplus hands which every steamer or emigrant train has brought to our State. Now it is easy to be seen, if there is not prosperity in the agricultural districts and a prompt and paying call for laboring men there, a surplus of men will be thrown on to every other occupation, and not only will a difference be made in regard to farm labor, all the trades will feel it as well; the same causes which lessen the labor call will lessen that for building and new material of all descriptions; the farmer's economics will be forced to embrace every article he can possibly exist without. To my mind this state of things points unmistakably to a lessening in all labor values. The workingmen themselves, and only the workingmen, have the power to remedy this state of affairs, and provide that not until a distant future will their wages be lessened. For the reasons I have given in former articles, the capitalists will not, can not, help them; it would be but folly to make the attempt, with the example of loss and ruin which has overcome the large majority of those who earliest invested their capital in the building of this State. We have reached a point when it is necessary for each worker to examine his own capability, and if his own trade or business does not satisfactorily remunerate him, to see if another will not do it; what the multiplication table is to further progress in mathematics, what the Latin language is to the would-be linguist, a good trade well learned is to him who would acquire another. Some of the leading and most successful men who have figured in our small community have made their mark—not in the first trade they learned, but in others, to which the first was but the drill and stepping-stone. Let our mechanics and workingmen out of profitable employment combine in twos and threes and dozens in the prosecution of those vocations and manufactures which have no home or but slight foothold in our community—let the one who has knowledge teach the rest, resolutely leave part of this labor as capital, and success is certain. Our agricultural community, from necessity, must change their habits of culture and product; if the workingmen are wise they too will change, before necessity absolutely compels them. A change now will command more profit than later, when wages are forced to a lower point than they are now. Each man possesses some peculiar ability beyond his fellows; combine these qualities, make capital of them, and you will be stronger in your industry and application than any bought genius or muscle; not a trade, manufacture or production is beyond the reach of combined harmonious labor. If example is necessary beyond the miracles our mining associations have accomplished, look at the paper you are reading, one of the best newspaper properties in the State, entirely the result of the combined energy and industry of a few practical printers. If there were no other field than that of manufactures of articles of every day use, there would be business sufficient for all who now seek employment; but beyond these are the productions of the soil, needing only skilled industry to give them not only a commercial value, but giving stimulus and profit to every hand of agriculture.

Openings of New Business for Associated Labor.

Editors Call:—In my last letter I referred to the occupations and employments that might be developed into life and business activity by a better attention to the resources our agricultural wealth opens to us. All know that our bullocks are being slaughtered for their hides and tallow, and that beef is as cheap here as in any part of the civilized world. The use of preserved meats in cans is not only yearly increasing in the navy and merchant service, but in all those places within the tropics where beef and mutton are of poor quality. In 1847 the putting up of preserved meats was commenced in Sydney, New South Wales, by an American who had not a previous knowledge of the business, but who by careful industry worked his way to an excellence of preparation and production, which has given the preserved meats from New South Wales a welcome market, not only afloat, but throughout India and China. With our cheap, good meat, and continuous supply of vegetables, why may we not have a share in this business? The California salted meats, when well put up, are in demand in the ports across the Pacific, and of a right we should furnish their whole supply, for cheap material at the outset, freshness and distance are in our favor. The objection is raised, our climate is not cold enough, the meat does not cool off well. We think that objection can be met with buildings constructed for the purpose; high tiled roof, hollow walls, will perhaps meet it; if not, the hollow of the wall and roof filled with charcoal. If this does not meet the case, put an ice-house at each end of the building, and it will be cold enough to freeze the bullock if alive. And while on the bullock, it will be well to follow his hide, and see what our shoes and boots, some 1,500,000 pairs per annum, cost us. The hide is sold to a merchant who makes either a profit or commission for buying; it is shipped, paying a freight and insurance, and losing five months interest on its cost; it is then sold to a tanner in the Eastern States, and again pays a profit or commission. The tanner makes his labor and profit and sells to a leather dealer, who sells with his profit to the shoe manufacturer, who makes his labor and profit in selling to a shoe dealer, who again sells to the buyer for a California house paying him also commission; the California house on its receipt pays a freight and insurance, and with all these added profits on a California hide, presents it to you for sale in the shape of boots or brogans. Look at the amount of soap we import, and the use the same bullock could be made of in its manufacture; and the same with glue, neat's-foot oil, etc. Is there no chance here for a combination of capital and labor, and a profitable employment for many thousand people?

Another item of our over-product: Fruit, of those varieties which sell best from cans, is as abundant and cheap here as any place. Success in putting it up is no experiment; it has been done successfully this season; the market for preserved plums and peaches is world wide; the outlay and capital beyond labor is but a trifle in comparison of the extent of business. The manufacture of syrup from the Chinese sugar cane, perry from pears, and drying apples and peaches, are each and all businesses which will pay labor combined with small capital, but more or less difficult to make profitable with hired labor at current rates.

Mr. Editor, I have sent you these letters that I might have a chat with the large class of our citizens your paper claims to represent. My personal interest in the matter must be by this time apparent to your readers. As a farmer, my interests are identical with the working interests of our State. My own business as a producer cannot be prosperous unless prosperity reigns with theirs; my product will not command sales unless they have money to buy; they cannot have money, nor command the present rates of wages, unless new avenues are open to their labor. I am satisfied this will not for many years be done by capital alone, but must be done in such way as I have proposed in this series of letters, where the worker independently helps himself. Once he moves and is successful, capital will move to him; but capital will not move alone. And the same with the farmer; he, too, must change his product, and furnish the craftsman with the raw materials of the manufactures and consumption required in our daily life, or the prosperity so prevalent in the early days of California agriculture will be clouded by a loss of capital as well as profit. I had hoped my letters thus continued would have drawn out an expression of opinion on the subjects which I have treated, from some of your correspondents who are familiar with the manufactures spoken of, as well as interested in their success. If the seed thus sown is "on good ground," and will bring forth a crop in an earnest effort to benefit, and a better understanding of the material interests of the State, in the general revival a new impulse will be given to that of agriculture.

OUR AGRICULTURAL INTERESTS.

Necessity of a Diversity of Crops.

EDITORS ALTA:—I have read the communications of your correspondents "Farmer" and "Level," on the difficulties of Californian agriculturists, under the present rates of labor, and although I know them to be practical men, having a full experience in the daily employment of laborers, I trust they will take no offense when I state their views do not meet all the exigencies of the case. A lower price of labor will go far towards making grain-growing profitable, but to make it profitable in proportion to the interest of money in other investments, a fall of fifty per cent. in the value of labor will be necessary. This great decrease in the wages of laborers cannot be looked for while the miner's labor is the standard by which all other labor is governed. Therefore, we must look to some other means which will, with a lessened labor account make capital invested in agricultural operations pay a fair interest. I think it will be found that when the farmers' gross sales are much less than thirty dollars per acre, the farming districts are not prosperous, store debts and interest accounts accumulate, and when sales run down to twenty dollars or less per acre, the constable and sheriff do the best business of the district which often suffers under this infliction. At present prices, it takes a thirty-five bushel crop to reach the first condition, while a succession of light crops soon works out the second.

The sum of our experience is that the farmer who raises in the average less than thirty bushels of wheat per acre, cannot follow his business profitably at the figures at which wheat is now required for the export trade. A short crop and low prices, combined, burns the candle of farmers' finances at both ends, and few have length enough to reach over for the good time coming, which every one, groaning under present loss, naturally expects. If you doubt my conclusions, examine the records and see the amount of mortgage made on farming lands within the last two years, and the amount of foreclosures and attachments will convince the most skeptical that it is only on lands of remarkable fertility, coupled with fortunate seasons, that the farmer who relies on grain growing exclusively, can hope to escape with his original investment. Of course, general remarks like these apply not to one season or two, or to any particular district; but to the average of agricultural investment in the State; the accident of a rain, more or less, or a north wind, early or late, may make the difference between profit and ruin. We have seen a district prospering while the rest of the State was suffering. Even within the last two years, the farmers of certain localities have prospered, while their neighbors, not ten miles distant, have been ruined; a fresher and more retentive soil saved the one, while want of moisture at the proper season ruined the others. The same experience would show that those who are now prosperous from a full crop, will in their turn be crippled by the accident of seasons as their soil gets shorn of its large productive power. The first impression would be to cultivate smaller farms, manure and cultivate better.

The experience of all large grain-growing districts is, that the large farmers can grow it the cheapest, and if the records are again examined, it will be found that many a small farmer—economical, painstaking, industrious men—only hold the present shelter of their families by virtue of the homestead law. If the farmer manures, a positive outlay of five dollars, or more, per acre, is at once made, with a prospective yearly outlay of one dollar per acre for weeding. If he tries to arrive at the same result by a green or corn crop, the most he need expect is a new dollar for an old one, on his labor, and a loss of one year's rental. Whether he tries to enrich his land by a green crop, of naked fallow, his reward will certainly come in an added yield of ten bushels per acre in his next wheat crop, but the addition of ten bushels to his crop the second year, at current prices, will hardly pay the outlay and interest on his labor of the previous year.—To keep up the character of our exports, large lots of uniform quality are required; these can only be arrived at by the cultivation of large farms. The experience of those who have invested capital in large farm operations, does not warrant its continuance. The march of the farmers is not entirely arrested; there are many more yet to throw themselves into the breach, and doubtless very many will pass safe over the bridge of improvement which has bankrupted their predecessors. But the tendency is still the same to cripple and discourage the agricultural interests of the State, and lesson our power of export. The question is, shall the evil be allowed to grow until it reaches this point, or shall immediate remedy be sought for and applied?

Now, Mr. Editor, I do not want to be misunderstood. Although we do not now export grain with present profit to the farmer, I believe that the time will be when California flour, understood and appreciated, will in tropical climates be sought after as Haxall and Gallego have been; that the lower grades will sell on the Asiatic coast; that these markets and those of the islands of the Pacific will take all our surplus. But it is with the present we are dealing; the demands of Californian labor and interest are great. The men now engaged in developing the agricultural resources of the State, are of too much importance to its future wealth and present prosperity, to be allowed to suffer long under evils which a better understanding of their position and resources and somewhat of united action would bring about. Diversity of crop and determined encouragement of home manufactures will bring about this result. We want population; but we must find profitable employment for them. We want a home market for agricultural productions, which we can only have by encouraging home labor and home manufactures. All want our gold, but we cannot keep it unless we resolutely resolve to produce and manufacture more from our soil and of our own product. We have accomplished wonders, but not a tithe of what we must and can accomplish.

The vineyard interest is yet in its infancy, and it will be some years before we will feel its additions to the capital of the State; and so of the culture of the olive, almond and other plants in which the growth and returns are slow. The need is of those crops which will give a more rapid return for less present outlay. Of these the hop, tobacco and flax look favorable. The experiments heretofore made in their culture have been successful; each has had the advantage of commanding more than a home market. In some shape we must grow our own sugar. Legislative aid, generously given, must call forth cotton, and cottonized flax, not only in the staple but in the manufacture. New operations are attended with great risk everywhere, but nowhere greater than in our State; and where so many interests will be benefited and so much added to our State's wealth, legislative aid is legitimate, and, in the present state of the agricultural interests, absolutely necessary. A portion of our agricultural labor should be diverted from grain-growing into into other channels, a home market made for a larger portion of our cereal crops, when prices would not recede below the cost of production. It is the duty of our legislature to encourge the rapid development of those staples which require much outlay of capital, *and it is the duty of every farmer, which he owes to himself and the State, to add to, or so far change his culture that he will not wholly rely on a cereal crop.* Until this is done, I do not believe the agriculturists of this State, as a class, can be prosperous. Of course this is an individual opinion; if I am wrong, show me where, for I have but one interest, and that is agriculture.

Depression of the Farming Business.

EDITORS ALTA:—In my last communication I attempted to show the absolute necessity that exists that the farmers of our young State should pursue a more diversified culture. I think our agriculturists have only to give this matter attention, to discuss the subject in all its bearings, to become not only alive to its importance, but also to realize the prospective bad position in which the mass of farmers in the State are likely to be placed, unless a speedy change for the better takes place in their business. It is time for the farmers not only to ask but to ascertain clearly why, with an increasing population, and an export trade equal to seventy-five medium clipper loads per annum, with better tools and culture, better roads and facilities of shipment, that improved farming lands have steadily decreased in value for the last three years. We must ascertain clearly why so many improved farms are offered for sale; why the mortgages on record have increased four-fold; and why the Sheriff's office has become the lucrative business in many of the agricultural counties.

He will find, while we raised only sufficient grain for home consumption, and none to export, the whole agricultural community was prosperous; the moment the necessity of export to distant ports commenced, a decline in this prosperity was apparent—not striking, at first, as the accident of the Crimean war and short crops in Europe gave such price here that over-production of cereals did not appear to be an evil or a detriment to the agricultural interest. Where thought was given, lessened freights, better tools and a cheapened labor and interest were calculated to offset a lessened price, so that there was no real calculation that the value of grain would be reduced below the cost of production with profit. That none of these anticipations have been realized to a sufficient extent to leave present profit to the farmer, very few engaged in farm operations will admit. On examination it will be found, that all those who achieve profit at this time in grain growing, are those who have fresh or remarkably productive soils, or are so situated with moisture near the surface, as to be independent of timely rains. The mass, however, on dry lands, or those often cropped, are quite ready to leave the grain crops for something better; at least, those who have teams and tools left with which to operate.

I doubt even with a much lessened labor account, we can compete with the low-priced labor of countries nearer market in the production of cereals, unless there is a reduction in interest and taxes in a far greater ratio. Our farmers pay an interest six times exceeding the interest paid by farmers of old England, and four times more than is paid by the New England farmers. The taxes of some of our agricultural counties are one half as much as paid by the whole State of Vermont or Rhode Island. The labor account is three times that of the best farm labor in England, five times that of Germany, and seven times that of Russia, yet when we export grain we have to compete with those countries. I admit the climate and the soil give us advantages of out-door labor, and use of machinery, that lessens the comparative cost of our productions, but not enough to contend against the advantages other countries possess, in ordinary seasons, when neither a short crop or a war give an extraordinary stimulus to price. The interest of our farmers is to grow a more varied and a less bulky crop, to resolutely lessen their labor account, to secure more favorable interest by the establishment of Savings and Loan Societies in every agricultural county, to make a home market by giving preference to California manufactures, and, by more carefully selected Supervisors and legislators, lessen their taxes. All this and more must be done before we can again have what is so desirable to the State—a body of men profitably and contentedly engaged in agriculture.

Disadvantages under which the California Farmer Prosecutes his Business.

Editors Alta:—In my last communication I referred to the high rates of taxes in the agricultural counties, and as the representatives from the farming and commercial districts bid fair to be in the majority in the coming Legislature, it may do no harm to remind those most interested that both the agricultural and cow counties are becoming too much impoverished to longer pay more than their proportion of the State expenses. A tax becomes slightly onerous when it amounts to twenty per cent. of the farmer's net earnings, and a heavy burden when his year's labor does not net the amount, and it has to come from his capital or become a debt, yet the last and present year's taxes are in this position to many of the farmers of the State. Under this state of things, a reduction is absolutely necessary, and if the State's burdens are evenly distributed, the reduction may be made even after the war tax is added to the amount necessary for an economical administration of the State's business. One of your city papers lately called attention to the number and amount of laws enacted for our welfare, or misfortuue; they might have also called attention to the number of courts held per year for their administration. Seven or more courts a year are held in many of the agricultural counties; what with jury duty and calls as witness, the nonlitigant farmer will be happy to escape with less than two weeks of his time per year consumed in their attendance. Three, or at the most, four courts per year would do the whole business, and their sessions might be managed so as not to interfere with either planting or harvesting. A week from work at either of these seasons is something more than a week's labor lost; it may and often has cost a bad planting of the crop in winter and shelled grain in the harvest. This loss of time is a growing evil, as few judges or attorneys calculate rightly the value of a farmer's time in this country of high and uncertain labor.

Now that the profit of farm life and labor has come down to such close figures, that one-fourth of a cent on grain, or five dollars per acre, more or less, is the sum total of the farmer's gains, it behooves him to watch these trespasses upon his time the more earnestly, as he not only has to lose more time than necessary, but to pay in taxes the cost of the machinery by which the trespass is made. And while examining into this matter, another in the same connection may as well have their attention, to see if, in its action, it is not more burdensome on them than on any other class of business men in the State. The present attachment law, made to prevent the too sudden movements of unscrupulous traders, who might wish to travel on the proceeds of unpaid-for goods, is rather a harsh measure by which to collect a debt of a farmer, who, from the nature of his vocation, is a fixture which, in very few instances, can be made locomotive without sufficient warning for all his creditors, who, in ninety-nine cases in the hundred, are all within his own township. We will suppose, for any reason, a merchant is attached: his case is immediately examined by a jury of creditors, and their verdict clearly shows whether the attachment is the result of necessity, malice or timidity; if loss is made, it is known whether it is by accident, misfortune or fraud; whatever settlement or arrangement may be made, the whole community of merchants know and understand the case. Honesty, fair dealing and integrity has its full reward in a renewed business, and fraud its punishment in a straightened credit. No so the farmer, if once attached he seldom recovers; in most cases he has but one large creditor, and that the storekeeper—the balance are his hired hands and dependents, who, from habit, nature and education, look not to cause, only to effect; and as in most cases they lose their wages, the farmer's future credit with that class is completely wrecked. The instances of farmers being able to profitably resume business after having been attached, are few and far between. The fact that work hands lost money is so vividly remembered, that good service afterward is difficult to secure. The time usually taken for farmer's attachment is when nearly through threshing, before the grain is hauled off and sold, the moment when he has the most hands, and most debts, and is nearest the means of paying them. If the first attaching creditor is satisfied with a levy on the grain, in the course of an hour all the rest of his available means will be seized by the next one. He is then in the web, subject either to the mercy or malice of the first creditor. In the meantime, his hands stopped from work, without security or pay, will receive or care for no explanation or result of the business that does not settle their accounts; there is no such thing as renewal or extension from them. Nor should there be, for so long as a farmer is indebted for his labor account, so long as the last dollar is not paid, he cannot hire reliable men or secure good service.

Thus, while the merchant can, with lessened means, go on with his business securely on credit, in the full measure of correctness of past transactions, the farmer, it will be found, is reduced at once to a cash basis, with a year ahead before he can expect to realize from another crop. The law, as now in force, is unequal, and to my mind should be changed, so that the first attaching creditor should attach for all; in that case, covetousness, timidity or malice would not work unnecessary mischief. If the law as now written is necessary for the security of the mercantile business, then it may be modified where it reaches the agricultural. Our farm and farmers are too valuable to our State, too great an element in the progress and success of all other business, to be more at the hazard of utter bankruptcy than any other vocation in the State. While the present system of cropping continues, bringing the whole receipts of the farm at the annual harvest, there will be danger, so long as the present attachment law continues, that a small indebtedness may bring ruin to a household. The agricultural business of this State has, for some years to come, to be at a low scale of profit; the farmer will have to use extraordinary diligence and economy to make sales and expense account balance; he can bear no higher tax, either in money or time, than is absolutely necessary for the good government of the community; and while thus closely pressed by the results of his legitimate business, no chance that he can insure against, by judicious legislation, should be lightly estimated. Our State's future wealth and the well being of our whole community is dependent on that of our agriculture.

The Value and Cost of Farm Labor.

Editors Alta:—I come now to the matter of farm labor. With some of the points made by your correspondents "Farmer" and "Level" I cordially agree; with others I do not. That we have been paying too high is very certain; but as long as the mines pay one dollar per day to the hand, that we shall get farm labor very much below present rates is not so certain, for the reduction of labor must be very great to make grain-growing, for export, profitable, while the other drawbacks to this business remain unchanged.

So far as my observation goes, the class of men offering for hire in the farming districts the last year was far superior to that of any former year. There has been marked improvement in the character of farm hands in the last four years, and there has been less difficulty in selecting steady, available men for the different employments of the farm. There has also been a greater freedom from disease brought about by dissipated habits, as well as a greater inclination to steady employment. The desire of change which pervades the minds of laboring men in this State is another evil with which the farmer has to contend. It would seem as if there was a positive dislike of nineteen laboring men out of twenty to hire for any term of time except at rates of wages ruinous to the employer. This works evil for both parties—under constant uncertainty, the employer lays out as little work as possible, thus immediately lessening the chance of employment to the laborer.

I have given some attention to the effects of these changes within the last eight years. But a very small percentage of the single men have bettered themselves; most of them are still at hard work without accumulation. The married laborers have done better, and in nearly every instance, after starting on their own account, have added to the savings previously made. A very reliable class of labor has been had from those who have used the high wages of California to pay off mortgages on homesteads and farms in other States, leaving the results to their labor here, while its profits have gone to the benefit of other communities; but it is a standing advertisement in each of these communities that steady labor reaps a rich reward in our Golden State.

What are usually called smart hands are not so profitable in numbers, for gang labor, as on farms where only one or two hands are kept. Good, reliable men could be had all through the last winter for twenty dollars per month. The class of hands hired at this rate were suitable to be worked in gangs, or under the eye of the master; and it is hardly desirable for the State that the wages of the workingman should, for the present go below this figure. The wages of extra hands during the winter, were from $25 to $30 per month. The same class of men have been hired through the harvest at $30 to $35 per month; but as there is in harvest less opportunity to make a choice, the inferior hands get much more in proportion than in winter.

So far as my observation goes, there is little profit to the grain farmer in hiring Chinese labor, unless the difference in cost is at least ten dollars per month, the Chinaman to find himself. On all hard work they are behind the most ordinary white labor, the proportion being against them as eight to ten. Of course, there are cases where grain is spoiling for the want of binders, when anything must answer that will work; the farmer's best economy then is to put in enough of them. But on light work they are even with the white man, and there is great economy in their use in all such operations as weeding, hoeing, fruit-picking, etc. They have one good quality, which every farmer and farmer's wife will appreciate—they do not grumble at the cook.

The Chinamen can be hired at from twenty to twenty-five dollars per month, finding themselves; fifteen in winter and spring, and twenty at midsummer, would be, as things are, their fair valuation—in all cases finding themselves. The Digger is profitable in harvest at his regular tariff of one dollar per day, and, like the Chinamen, is good in the milk-yard. Farm mechanics, gardeners, dairymen, etc., have, during the past year, commanded from $35 to $60 per month, varied as to capability, time and length of service. There has been no difficulty in securing excellent men for the least of these figures, where steady work has been given. The custom of requiring all work hands to give a month's notice before leaving has been introduced on some farms with most excellent effect. "Full notice or no pay" is the balance-wheel which makes steady, harmonious work. The proprietor has no sudden calls for extra help or money. I recommend, after full trial, its general adoption. It steadies the gang, and does not permit Fraser river or other excitements to bring strikes for higher wages or ruin to the crops by stampedes, because the table or the work does not suit. All work should be laid out for gangs, in whole days or half days. There are always one or two clear-headed men in a gang who make no delay in shifting from job to job; use them on all business requiring fractions of days, see if the cost of each job as completed agrees with the estimated outlay, and the farmer is in a fair way to make the most profit which can be made above wages in the present state of our agriculture.

Amount of Capital necessary in Agriculture.

Editors Alta:—We come now to the capital engaged in agriculture. I think it may be fairly estimated that the improved farming lands of the State—that is, lands on which the fences are of decent construction, and the shanty of the first settler developed into a house; one on which the work animals have the luxury of shelter, and cattle are not compelled to starve for the want of fodder—have cost their owners in cash or labor forty dollars per acre. The small farms usually have more team in proportion than the larger ones, which is offset by the greater cost of implements on the large farms, so that fifteen dollars per acre will be a fair estimate of the capital in the labor prices of the farm; add five dollars per acre as the cash capital, and we have a starting point from which to take a view of farmers' labor and profits.

The farmer in the light lands has an advantage in planting, from the greater ease with which his land may he cultivated; and in harvest, on the sandy soils, he does not find the binding of his grain a necessity;

the difference in his favor has been equal to about three dollars per acre, offset by a shortened season and lessened weight and uncertainty of crop in the average of years. So far as my observation goes, the lessening of crop in steadily cultivated lands, without fallow, or manure, or rest, is equal to two and a half or three bushels per year—greater, of course, on thin soils. A fallow or a green crop has a wonderful effect on worn lands, one such rest bringing up the crop nearly to the original standard; but how long the effects of the fallow will be felt, observation does not yet show.

The reports of many years' cultivation of the same piece of land with undiminished crops—those reports, too, seemingly well authenticated—have been a great injury to California farming; they have been generally credited, and the lessened yield has been laid to season, when it should have been laid to excessive cultivation without change of crop. I have taken some pains to search out the truth of these cases of extreme fertility. In some, I have found the lands were so situated that a coating of alluvial was made by overflow every extremely wet winter, or the locality was such, they received a coating of manure from the wash of the hills severely cropped by cattle. In other cases, the springs were very near the surface, causing for ages a large yearly deposit of vegetable matter. This last is an important consideration. The want of much of the California land appears to be the vegetable and not the mineral requirements of the plants; want of moisture has prevented more than one annual crop, which has been generally hurried off in the fall, and the ashes scattered by the strong winds which follow the fires. The frost is not heavy enough to affect the soil beyond the surface; the fires are not great enough to more than calcine the most exposed particles.

Perhaps, herein, we have the explanation that, in many cases, deep plowing is not profitable—the soil exposed being too crude to furnish food for plants—needing years of exposure to the elements before it assumes the fertility of the soil rashly turned under. (I would here remark, that when any of my brother farmers dissent from conclusions or suggestions, they will, through the press, give the benefit of their practical experience; as my sole and only object in writing these articles is to draw forth such expression of opinion and discussion as may throw such light on the true interests of Californian agriculturists, that we may avoid the calamities which are threatening the Californian farmers. Man after man who has gone into the business with capital, has succumbed to double pressure of low prices and short crops. The withdrawals from the business—whether from failure or disgust—have been not only by those who embarked in it without much of personal experience to guide them, but those who have made it a life-long occupation; the thrifty, pains-taking farmer and the careless have alike left, or have been obliged to leave, a vocation in which the State's best interests are involved. It is our business and interest, as farmers, to fully understand the causes which have brought about this state of affairs, and if within our power, apply the remedy.) The application of a light dressing of vegetable manure in such cases, shows wonderful results, and few will complain of their crops when so situated that its application is possible and profitable.

On very few farms has there been any regular rotation of crops. The tendency of any grains planted to become a weed has much increased the expense of clean crops to famers. Want of cross fences has been another difficulty. Stock running from barley stubble to wheat increase the farmer's expense and lessen the value of the crop. The want of a paying green crop beyond that of corn, it is to be hoped, will be reached by the culture of the sugar beet. The necessity of some intermediate crop is becoming yearly greater. The thistle, mustard, careless and radish make good battle with the step-children of the soil yearly; the last, an imported nuisance, which requires more than ordinary efforts to overcome; its oily seeds lie years in the ground, ready to grow at any season where sunlight and moisture reach them.

On lands where these weeds have obtained a hold, one dollar per acre, yearly, will scarce pay the labor of keeping them down, and there are some lands in which they have obtained firm hold, on which fifteen dollars per acre would be a low estimate of cost of their extirpation. As this amount is not exaggerated—actual trial of some of my neighbors, as well as my own, showing its correctness—the farmer who has not been attacked by this enemy will do well to give it close attention on its first appearance. Few men in making their estimates of expenses allow sufficient for the incidentals, the makings, the repairs, the getting ready, the losses of time, wet and dry days, broken tools, lame and missing animals, in fact, the whole chapter of accidents and mishaps, as well as all the needful business of preparation, of getting ready to farm. From labor accounts kept on two farms in different parts of of the State, these items were found to embrace one-third the whole labor; hence I have adopted the custom, in all my labor estimates, to add thirty-three per cent., and experience has yet to show me that it is too much. Every wagon-tire that gets loose, every shoe lost, every fence panel open, every plough point and reaper knife broke, carries its own charges of labor and delay, and I think none but those who work very easy soils will think this estimate too high, when trying to arrive at the expense of their agriculture.

Amount of Cereal Crop and Method of Cultivation.

Editors Alta:—We reach now the yield per acre, and the expenses of cultivation of the cereal crops. The largest crops I have seen, taking fields through, has been sixty bushels of barley, the same of oats, and fifty bushels of wheat per acre, taking the barley bushel at fifty pounds, the oats at thirty-six pounds, and the wheat at sixty pounds. The best yield I have seen the last season is thirty-eight bushels of wheat per acre on a piece of land which the previous year had been in corn. A piece near by, of really better land, sown earlier, but which had been cropped for the same length of time without rest, produced less than twenty-five bushels per acre; another less than twenty bushels. This also was a better soil, but like piece No. 2, had been continually cropped.

Observations on these crops strengthened my impressions, that where our crops lessen in amount the want of the plant is more the vegetable than the mineral constituents. The first piece having had a dressing of straw manure from the cow yard the year previous; at the same time a naked fallow, on a piece of land which had run down to an average of twelve bushels per acre, brought it up to twenty-two bushels. It would appear that where the land is fresh and new, or made fertile by manure or fallow, so that the young wheat plants have no difficulty in extracting from the soil the material necessary for the first early and rapid growth, that a dry season afterward has not so much effect on the crop as it has on land where the vegetable element may not be so abundant, or well prepared for immediate use. In each of these cases the seed had the same preparation, and the land the same care in cultivation, the last two pieces mentioned being not only the strongest and best soils, but from location, depth of water, etc., the best crops might have been expected from them in a dry season.

Many fields harvested in the last two years have given their owners but from twelve to twenty bushels per acre. The same lands, after a fallow, would have given ten bushels more of better wheat. To those who cannot afford to lose the use of their lands for a year, which the naked fallow calls for—lands, perhaps, too dry to mature a paying corn crop—I would suggest a half fallow, which I have found to work well. Either pasture late, or hurry a hay crop off the land; then plow and pulverize well with harrow and roller; then plant corn in close drills, setting the drill so that it will cover very deep. The corn fodder thus planted will grow from two to five feet, and being green, when there is no green fodder elsewhere, will be eaten close down by stock, leaving the ground well manured, and in fine order for a crop. This can be done for less cost than the hauling and spreading of manure, and will be found, I think, valuable by those who wish to make the most of their land.

Another method of getting a feed crop easy has been practised with much success, and that is, after the stock has been taken off the barley stubble, to go over the land with a light gang plow or heavy cultivator, following after with a roller; the last operation is absolutely necessary, as the stubble turned under having but a light coating of earth on top will allow too great evaporation—forty bushels of good feed barley per acre, over a large piece, has been obtained at this light cost: twenty-five to thirty bushels per acre very frequently. It is generally the case where stubble has been regularly plowed under, the land will give easy to the plow in summer. I have seen land, after the volunteer barley crop was taken off, immediately plowed with the double object of making a half naked fallow, and securing an early green feed for the dairy stock. At the high rates of rents, labor, interest and taxes here, it requires much capital in land or otherwise to be able to forego its use through an entire season; for that reason, if no other, a system embracing paying fallow crops, must be sought out, which will enable our farmers to pay their way when their lands are recruiting the strength necessary to enable them to bear a paying crop. The large grain crops will pay at the rates ruling at the last two harvests, the small crops, at these prices, only bring ruin and disappointment to their producers—an evil only to be avoided by a change in the habit and customs now too generally followed in our Californian agriculture.

Costs of Farming in Different Soils.

In the estimates generally given of the cost of Californian agricultural productions, reference is seldom made to accounts actually kept of separate transactions, but more frequently the farmer has only the total of his expenses, guessing at all the intermediate items, while others are satisfied to count any sum as profit, which remains in hand after the wages of men and store expenses are paid. To such, any estimate of labor and farm expenses I may make will appear high, but by the mass of farmers such will be more readily believed now than they would have been but a short time since. Under favorable circumstances the reaper and ten hands will harvest fifteen acres per day, while the threshing machine, with sixteen hands, will turn out its six hundred to eight hundred bushels per day. When the weather is favorable, the land at the right state of moisture—when Jack Frost with his army of harrows assists the tillage, a farmer may easily plow and plant one acre per day to every hand he has at work; yet an estimate of the costs of farming from these data would be like making up a steamboat account with the "repair" items out. Farming may be made profitable for a few years on new lands, even at the present prices of grain, but a reckoning day must come; renovation, after the crops are lessened so they cease to pay, is not so easy for the farmer to accomplish, as to so arrange at the outset, by proper changes of crop and manures, to keep the land up to a paying standard.

A rain more or less may double the cost of either planting or harvesting any given piece of land. I have been shown accounts where one field used up five days' work per acre in planting and harvesting the crop, while the field beside it took but three; in the one case the weeds were prolific and the wheat badly lodged by a late rain, requiring mowing and other hand labor; in the other, the land was free from weeds, and the grain stood up finely for the reaper's work. Where land is in order for plowing with a two-horse team, it may be handled with one-half less cost than where plowing with a four-horse team is necessary. There is much land which can be worked cheaply in the fall, and planted early, at the risk of a lodged or drowned crop, which would be doubly expensive planted in the spring. And so through all the expenses of farming—each piece of land has its own advantages and difficulties, so that the labor cost of one field or farm may not be a fair estimate of those of another, even in the same season—therefore any estimate we may make will be but a close approximation to the average expense or cost of farming.

If the general average of farm production of the State is compared with that of other countries, there will be found no lack of energy or industry on the part of our farmers. We cultivate nearly two acres to the individual of our white population, and export fifty dollars per head for each of those engaged in the producing business of our State. The causes of present depression in the agricultural business are not beyond remedy, but which require a thorough comprehension on the part of the farmer of those which are in their immediate power to remedy, and a united will to make those changes and reforms which can only be brought about by combined and determined action. We now import from foreign countries and other States nearly seventy-five dollars per head. A large portion of this sum is for material which can be produced or manufactured here. What we now produce and export only amounts to about one-sixth of what we import—the balance has to be paid from our earnings and the products of our mines. Change our products and encourage home manufactures, until this debt against the State is lessened one-half, and no laborer will look long for work, or our farmers complain of the low rates of profits in all the branches of the State's agriculture.—*Alta.*

Costs of Grain-Growing.

The following estimate is the cost of cultivating an acre of average wheat land, in an ordinary season, which, I think, my farming friends will not find far from the truth;

Seed	$1 50
Plowing and sowing, one and five-eighths days	1 60
Board of man and team	1 30
Rolling	20
Weeding	1 00
Cutting, binding and shocking	2 00
Raking	25
Extra labor and extra team, with their keep while threshing	1 50
Sacks	2 40
Threshing twenty-five bushels at five cents	1 25
Hauling to a shipping point	50
Freight to a market	1 50
Storage, weighing and shipping	50
Proportion of the farm bill of blacksmith and wagon maker	75
Incidentals, embracing the time spent in repairs, rainy days, etc., thirty-three per cent. of labor	2 70
Taxes on sixty dollars, the amount invested	1 05
Wear of tools, depreciation in the value of fences, buildings, implements and team	0 00
Lessened value of land by cropping without manure	0 00
Interest on investment—forty dollars in land and buildings, fifteen dollars in team, five dollars in cash—sixty dollars	0 00
	$20 00
Sales of twenty-five bushels wheat, 1,500 lbs., at one dollar and forty cents per hundred, which, I think, is about the average value of good and bad wheat at harvest for the last two years	$21 00

Leaving one dollar for the farmer as his profit on his labor and investment with which to commence his next year's work, and four dollars less of cash capital than he started with. Now assume my figures are wrong, that deductions from the charges above can be made to the amount of four dollars, so as to bring him out with his original cash capital, or that he received one dollar and sixty-seven cents for his wheat, which would reach the same result of the five dollars per acre of cash capital with which he started; where is the profit or interest on his labor and investment? Farm labor is not likely to go far below twenty-five dollars per month, when hired for short terms in winter, nor much less than two dollars per day during the harvest season. Reduce all the labor items twenty-five per cent., and he only gets his original capital back; making, I think, my early statement good, that reduction of labor expenses alone to any rate probable while the mines continue profitable, will not enable the farmer to raise grain crops profitably at the rates ruling at the two last harvests.

If he holds his crop for better prices, he must have large capital or incur debt. If the result is as I have made the figures, he must incur debt to get through another crop; a sorry prospect, at the ruling rates of interest, with the chances of the Californian attachment law being applied to his case, whenever a creditor becomes uneasy or malicious. With this law unchanged, no farmer is safe in his vocation, without cash capital sufficient for his expenses for two years, (enough for one year will not answer) for rust in the wheat crop, or a low range of prices in foreign markets, may leave him at the end of one year entirely shorn of cash capital. That this presentation of the farming business is not overdrawn, the daily sales of farmers' effects, by order of Court, is sufficient answer. To my mind, there is no effectual remedy, but that proposed in the first letters on this subject.

I think the regular Californian ship owners and merchants, if they wish to continue receiving freights of cereals for their return vessels, should make their calculations to make the freights their profits, instead of an investment; the grain will not bear the double profit and leave any margin to the farmer. A crop cannot now be raised on old or second class land, with profit to the producer, at the rates ruling at harvest; the lower that rate, the more the farmer is obliged to sell, and the less he will have on hand to benefit by any after rise in the price. As before stated, there is a point at which production must cease, and that is at the exhaustion of the farmer. How long the agricultural army will, with fresh numbers and resources, battle on, I am not prepared to say; but to my mind the limit of our export has, for a time, been reached—for I know of none now bold enough to invest new capital in agriculture.—*Alta.*

Expense of Wheat-Growing.

EDITOR GAZETTE:—The cost to the farmer of wheat landed on the wharves of this city, is a matter to which we can only make a close approximation, as season, soil and amount of yield per acre will not only make it vary from year to year, but on different farms the same season.

We find in a communication in the *Alta California* the following statement of the cost of cultivation of an acre of wheat on a medium sized farm, where the threshing machine and additional team required at that season were hired, and it appears to be based upon the labor of a twenty-five bushel crop in an average season.

Seed	$1 50
Plowing and sowing, one and five-eighths days	1 60
Board of man and team	1 30
Rolling	20
Weeding	1 00

Cutting, binding and shocking	2 00
Raking	25
Extra labor and extra team, with their keeping while threshing	1 50
Sacks	2 40
Threshing twenty-five bushels at five cents	1 25
Hauling to a shipping point	50
Freight to a market	1 50
Storage, weighing and shipping	50
Proportion of the farm bill of blacksmith and wagon maker	75
Incidentals, embracing time spent in repairs, rainy days, etc., thirty-three per cent. of labor	2 70
Taxes on sixty dollars, the amount invested	1 05
Wear of tools, depreciation in value of fences, buildings, implements and team	0 00
Lessened value of land by cropping without manure	0 00
Interest on investment—forty dollars in land and buildings, fifteen dollars in team, five dollars in cash—sixty dollars	0 00
Cost of cultivation per acre, and landing in market	$20 00

The following statement is the cost of the cultivation of an acre of wheat on a large farm, where no teams or tools are hired:

Seed	$1 50
Plowing and sowing, one and one-half days at twenty-five dollars per month	1 43
Board of men and team	1 50
Rolling	20
Weeding	1 00
Cutting, binding and shocking—wages thirty-five to forty dollars	1 70
Raking	25
Sacks	2 40
Threshing—proportion wages and board seventy-five @ twenty-five dollars	1 60
Hauling	50
Proportion of blacksmith and carpenter's wages and material	44
Taxes	1 12
Contingencies—allowance for the lost time which every breakage, lame animal or rainy day occasions	2 56
Shipping, warehouse, weighing, etc	50
Freight	1 50
Interest, commission, wear and depreciation	0 00
Keeping of buildings and fences in repair, and keeping up working stock	0 00
Making the average cost per acre	$18 20

In the *Bulletin* we find the estimated cost of the cultivation of a farm of eighty acres, where no labor is charged in the account except at harvest and threshing:

Seed for eighty acres	$120 00
He will be three months about his work; board for himself and boy at three dollars per week	72 00
Keep of two teams, fifty cents per day	90 00
Board while weeding and looking after crop	12 00
Hire of reaper gang and reaper	160 00
Their board	30 00
His board while stacking and raking	12 00
Sacks for two thousand bushels	180 00
Hire of threshing machine—five cents a bushel	100 00
Hire of three extra teams and wagons, three days at two dollars fifty cents	22 50
Hire of thirteen extra men, three days	78 00
Board of sixteen men, himself and boy three and one-half days	27 00
Board of teams, ten, three and one-half days	17 50
Wages and board of men while reaper knife was broken	00 00

Wages and board of men while horse-power was broken	00 00
Extra labor of mowing, raking and threshing, where grain was lodged	00 00
Interest charged by warehousemen on advance for sacks, harvest expenses	00 00
Storage, weighing and shipping, sixty tons	30 00
Board of man and team when hauling	27 00
Blacksmith, wagon maker, harness maker, all seventy-five cents per acre.	60 00
Freight to market, sixty tons at one dollar and fifty cents	90 00
Taxes on land and teams, tools, etc	64 00
Interest, wear and tear, depreciation of value of land by constant cropping	00 00
Damage to crop by hogs, stock or rain	00 00
Total expense	$1,192 00

Which gives an average of fourteen dollars and ninety cents per acre ; but as in this statement there is no charge for contingencies or incidentals, we add a corresponding charge to make closer comparison with the others, which will increase the amount to about sixteen dollars and seventy cents. We thus have the cost of grain per acre in favorable seasons, when the average crop is twenty-five bushels, on medium sized farms, when labor is hired, at twenty dollars ; on large farms, where labor is hired, but machinery belongs to the farm, eighteen dollars and twenty cents ; and on small farms, where most of the work is done by the farmer and his family, sixteen dollars and seventy cents—subject, however, to all the additional costs which may accumulate from the items left blank in the statements, amounting to two dollars and fifty cents per acre, more or less. These statements are made for the expenses of eighty acre, one hundred and sixty acre and eight hundred acre farms. The estimated cost of tools and implements is $800, $2400 and $5600. As in all farming the family do more or less of the work, and as the success as well as the economy of the effort, will in many cases depend on the organization of the household, some portion of the family expenditure, as well as the cost of keeping the farm in force and material, as well as general repairs, are strictly chargeable to the cost per acre ; these expenses are covered under an allowance of five dollars per acre for the two small farms, and two dollars and fifty cents for the large one—making the cost of number one, twenty-five dollars per acre ; number two, twenty-two dollars and seventy cents ; and number three, twenty-one dollars and twenty cents. A six hundred to eight hundred acre farm is large enough to warrant having and using all the larger farm implements, and probably the most economical in its management and details. A medium or one hundred and sixty to two hundred and fifty acre grain farm has many of the expenditures in common with the larger farm, without the corresponding economies.

I believe these statements to be nearly correct. The hire of both labor and machinery increases the cost of production on a medium sized farm, while the economy of time which the larger farmer makes by his ability to concentrate his forces on the lands best ready for cultivation, and to take advantage of steady labor in his harvest, enables him to get the cost of his cultivation per acre very near to that of the man who does the work almost within his own resources, and has no labor to pay except at harvest. In the harvest of grain, much more is wasted or left on the ground where the crop is small, than where there is a heavy crop standing well up, so the reaper has no chance to slide over the grain ; and the increasing costs of cultivation and harvest are in no case in proportion to the difference between the profits of a large yield and a small one. The average of the cost of production per hundred on the two farms where the labor was hired would be at the rate of one dollar and twenty-seven cents, without these charges, and one dollar and fifty cents with them. Some intelligent farmers, however, aver that year in and out their grain costs them one dollar and forty cents to one dollar and forty-five cents per hundred, delivered in the city, from soils where it is necessary to bind their grain, increased with a light yield and lessened with a large one. On sandy soils this expenditure would be lessened at the rate of three dollars per acre. As the average of these estimates is probably nearly correct, at present prices the farmers are receiving fair returns and profit on their labor where the yield has been not less than twenty bushels per acre.—*Mercantile Gazette and Prices Current.*

Advantages of Changes and Rotation of Crops.

Editors Alta: The cultivation of corn, as a cleaning or fallow crop, is fast becoming a regular business with our best farmers. This crop may be handled with six days' work per acre, under favorable circumstances; up to as high as eleven days' work to the acre where late rains increase the labor. If a green crop is turned under before planting the corn, a heavy rolling is absolutely necessary; but the practice is attended with no little risk of losing a crop by drought, unless a heavy late rain assists the rotting of the crop turned under. A crop of corn fodder may be made after a very late green crop is plowed under; and I have yet to learn of any method that will more readily, at light expense, put a piece of land in good heart. Our dry seasons forbid the quick rotting of any long manure; nor can it be hauled and spread to any amount at much less cost than five dollars per acre. Perhaps the cheapest and best mode of its application is to spread in the fall, before the first rains, and plow under for the benefit of a corn crop, as soon as the grass is well started, in February. This will insure moisture for its rotting the first season.

In any rotation which is introduced, it is well to burn off the land after the volunteer or hay crops, both on account of the weeds and the partial calcination of exposed particles of soil; but if the burning is an annual practice, the soil will soon show a want of fibrous matter, requiring more rain to soften it, and more team to work it. On many accounts, an oat crop before wheat is preferable to a barley crop, where no clearing or fallow crop is to intervene. If oats remain in the land, they are of less injury and are easier cleaned from the wheat than barley. If the regular oat crop is followed by a volunteer crop for hay, it will be off early enough to admit of close feeding or a half fallow, which will add some bushels to the yield, as well as make a cleaner wheat crop. In laying out the rotation of crops—and California farming is fast reaching a stage in its progress where the wisdom of the lay out will govern the profits—as wheat is the crop that has payed best, and weeding of foul seed or volunteer grain from it is expensive, it will for a time have to come more frequently into a rotation than is considered judicious or profitable in other countries; at the same time, it will be well to lay out the work so that a portion of the farm will require but a light plowing each year to give sufficient team and time to the deep plowing.

The following rotation has some advantages in this respect, as well as freedom from weeds. We will suppose a piece of land has, like most of our inclosed land, been well cropped with wheat. It might be planted: the first year with barley, plowing deep; second year, volunteer barley, plowed light; third year, oats, plowed medium depth; fourth year, oats, cut for hay; fifth year, wheat, moderate depth of plowing; sixth year, corn, with manure, deep plowed; seventh year, wheat, light plowing; eighth year, wheat, medium plowing. In this rotation there are two deep plowings in eight years, two years in which light gang-plows can be used, and one year in which plowing will not be necessary. If the land is burned over before plowing the third and fifth years, the security of a clean crop is the greater. A top-dressing of salt on lands out of reach of the sea fogs will help the crop, especially in very dry soils. The lessened amount of team required and equality of crop secured where four fields are laid off in a rotation similar to the above will readily suggest itself to the farmer; and if in time the sugar beet, or some similar product, can be introduced to a profit for the intermediate crop, grain farming will be made easier, if not more profitable, than at present.

In favorable seasons there is not much advantage in seed put in with the drill over seed sown broadcast; but in dry seasons, so far as my observation goes, the drill-sown grain has the advantage. Many farmers have injured their seed by steeping too long in vitriol water. If two ounces blue vitriol to the bushel of wheat is dissolved in water sufficient to wet the pile—which, thus wet, is allowed to stand two hours, and then dried by the application of unslacked lime—all the purposes of the steep are secured. The seed is not only ready for immediate use, but can be kept for use at a future time; in such case, however, the pile should be shoveled over with the lime until perfectly dry. In harvesting, the straw can be stacked, if the threshing machine has proper straw carriers, for about thirty cents per acre more than the usual expense of bucking it off, and affords a feed for stock in winter, and a means of accumulation of manure, of so much value to any farm that it is surprising that so much is annually burned, when it can be saved at so little cost. The landowner who leases his land without a condition that the straw product shall be stacked on the place, is in a fair way to lessen his rental; and the tenant who regularly burns his straw will, in time, find the lease of a fresher piece of land more profitable. Whenever labor, freights and rentals reach that point in which the advantages we really possess can be made available, the shell beds of the bay on some lands, and the sand hills of San Francisco on others, will add largely to the productions of our agriculture.

The Number of Farmers Ruined by Exclusive Culture of Cereal Crops.

EDITORS ALTA: Before leaving the subject of grain growing to take up that of orchard and vineyard culture, permit me to say a few words in answer to an editorial which lately appeared in an evening paper, which more than intimates that the failures and distress in the farming districts are wholly confined to the large farms, and those who work with borrowed capital. Did either of these conditions cover the case, this series of articles would not have been written—for the remedy sought for, were that editor right, would have been too near and too obvious to have escaped attention. The number of men who have had small farms, and have been broken up, and are now working for wages as laborers on other farms, would astonish any one not familiar with this phase in California life. I have, heretofore, compared the farmers of California to an army storming a fortified place; the dead are laid in the breach for the live ones to pass over—new hands and new men are constantly benefiting by the improvements made by those who preceded them. Many a little farm is now held only by the homestead right; every available hoof and all personal effects have been sold to hold their own against the low rates at which produce has been sold the last two years.

The failure of the large farmers is more marked, but the distress among the small ones is greater. In one county, the mortgages placed on record increased four hundred per cent. at the close of the harvest of 1860. Under the style of argument used in the article in question, if these parties are sold out under mortgage, it is for working on borrowed capital, entirely losing sight of the original investment, and of the necessity that had arisen, in consequence of the low prices of their produce having used up all their cash capital, either to sell their farms or mortgage them for means to carry them on. I have yet to learn of any one farm that has been started and carried on by borrowed capital, as described in the article referred to; but I do know of many who have lost the original capital invested, and some extreme cases, where farms have changed hands, in the closing up of mortgages, for one-sixth of the original investment. I also know a good many small farmers, prudent men, every day workers, who have lost, or are about to lose their farms from debt incurred the last two years, and a number more who, I am happy to say, are saved from great difficulty by the present remunerative prices of wheat. The farmers of this State, myself among the number, will be obliged for that information, which will enable us to see profit sufficient for the support of our families in the cultivation of small grain farms, at the prices ruling at the two last harvests.

We are well aware money has been made in grain growing, when prices have ruled at one dollar and seventy-five cents and upward, and that these gains were devoted to the improvements which have made our agricultural districts what they are; and it is the present and prospective loss of this capital which makes what the gentleman is pleased to call the "standing grumble" from the agricultural districts. Few farmers in California have capital sufficient to carry them over two crops, therefore the failure of a crop or prices not remunerative creates the necessity of debt before another crop can be reached; if that also from any cause makes a failure of profit, he has not only cause for a "grumble," but is seemingly in a fair way to lose not only his labor but his home.

That the export of grain to foreign markets is a strong indication of prosperity to the State, no one can doubt; but that the amount of export is the measure of prosperity to the farmer, I beg leave to deny. Maintain the prices for grain which the New York farmer receives, and California would be a farmer's paradise; but keep it down, three seasons in succession, to the rates it ruled at the close of the present harvest, and, in my opinion, a large half of the grain farmers would be bankrupt.

If small grain farms are most profitable, as the writer above mentioned intimates, I would ask why the large farm system finds such favor in England, where grain growing has its aggregate of product, and is reduced to its minimum of cost—agricultural economies having the attention of the best minds in the kingdom? It is useless to put a false coloring on what admits of easy demonstration. If any figures, or the conclusions I have drawn from them, are wrong, no one will be more ready than the writer to receive instruction in the best method of making profitable California agriculture.

Orchard Cultivation, and the Sale of Fruits.

Editors Alta:—The cost of vineyard and orchard culture was pretty thoroughly discussed in your columns a year or more since, and in the interval I have seen no reason to doubt the conclusions then arrived at. The estimates of twenty-five cents for the care of each young bearing tree, and five cents for the care of young bearing vines, are not far from the truth, and are data sufficient to make the labor estimates from. We have yet to learn the profits of vineyard culture; as the Californian vines are now being tried on their merits, their value and place in the world's favor have not been so fully ascertained that there is perfect certainty in the investment; but enough has been learned of their culture, manufacture, and good qualities, to warrant the belief that in this staple Californians will not be disappointed. That orchard cultivation has not been generally profitable, the known fact that very few of the early orchards planted remain in first hands, is sufficient answer—giving fair warning of the danger of any long investment of capital in agricultural operations, against the current rates of labor and interest.

Although single trees and small plantations show great precocity in bearing, a longer time is required for a bearing maturity that pays. Where large plantations are made in orchard form—where the trees have abundant room and are well cultivated, the apple requires five to six years to bear a paying crop. This length of outlay without return has, in too many cases, used up the planters; and as the value of the product is wholly governed by the daily supply, no estimate can be given of the prospective value of this business. There is none too much planted when the consumption for the table in cooking, drying, preserving, etc., reaches a proportionate amount to that used in the Eastern States; but until the custom of buying by the pound is abandoned for that of purchase by the package, the Californian orchardist may rue his investment. The odd year appears to be the bearing year on this coast, although there is no difficulty, where the trees are well fed, of having an annual crop. The best yield I have known is 1,500 pounds of apples to a twelve year old tree. The tendency of the tree, where artificial stimulus is not applied, is to make slow growth after having came full bearing; and the weight of present evidence is in favor of the opinion, that the apple tree will not be so long-lived here as in other countries.

The taste of buyers for very large fruit interferes sadly with the profits of those who have planted the finer varieties of table fruit—such mammoths as the Gloria Mundi far outselling the best table fruit of small size. The habit of buying only large fruit has nearly ruined the peach trade; the buyer soon becomes surfeited where flavor is lacking, and the consumption has been seriously checked by the amount of large-sized watery peaches picked in half ripe state, and thrown in mass on the market. The culture of fine pears is increasing faster than the calls for the table; quantities of the most luscious varieties were sold this season for less than their cost from the tree. The manufacture of perry may in another year be introduced with profit to the grower and manufacturer.

The culture of plums, is to an extent that abundance may now be had for preserving in cans and drying. The California plum is unsurpassed in quality, and as the Curculio has spoiled it elsewhere, a wide market is open for this product when put in a merchantable form. The finest plums that reach the market are from the counties on the south side of San Francisco Bay. Alameda and Santa Clara will monopolize their culture, and the time will be when its export will be to them a profitable business. The culture of the nectarine has been at a loss to the growers; the good qualities of this fruit for preserves, have not yet commended it to ready sale; in fact, our people have not yet commenced to cork or preserve fruits to any great extent. Fresh fruits on the stands the year round, the great abundance of vegetables, and the minority of families in the great total of our population, may account for the fact that the consumption for this purpose is not one-tenth that of the older States in proportion to the population.

There is something to be learned in the manufacture of cider; as yet a good keeping cider has not been reached; there is a possibility that the fruit on our young trees is too much exposed to the sun, and ripens too fast, for the apple to be in its full strength. The peach shrinks to one-sixth in drying, which can be profitably done with labor at fifteen dollars per month. Se far as my observation goes, it is not safe to pack peaches dried entirely in the sun; they must be finished off in kiln or oven. Experiments on a large scale of preserving fruits in cans have been made this season with entire success; and as those understanding this business can obtain fruit hereafter at forty dollars per ton, or under, from the orchards, a profitable branch of business from this source may be opened. Orchard culture cannot be neglected; a season passed by without proper attention may bring ruin to the investment. The gopher takes possession of the ground when not in thorough tillage, and the largest trees succumb to his efforts.

The China coast will, when steam bridges the Pacific, be to the California orchardist what the English market is to the orchardist of the older States; and as our trees advance in age, and our knowledge increases of the varieties which are sure late keepers, as well as those which are safe to be shipped, there will be business sufficient for this branch of our agriculture.

Culture of Berries, Sorghum, Beet-root, Tobacco and Flax.

Editors Alta: The cultivation of berries has increased so much in the last three years, that competition, or a limited market, has so far interfered with profits that only the best and most prolific strawberry patches paid their owners this last season. A large portion of the raspberry crop was, from limit of demand, manufactured into wine, which is now ripening for market. An early season for the larger fruits interferes very much with the profit of this business—a cold season produces the same result—the market for all the soft fruits being cut off when the cold sea fogs are the prevailing feature of the season.

The cultivation of root crops, like that of the berry, I am not sufficiently familiar with to give reliable details of cost; and the same with the cultivation of peas and beans. This last article I have seen cultivated as a clearing crop, by parties who have Sonora laborers available; and as a portion of their business yearly is in their culture, I presume it is found profitable.

We have favorable accounts of the culture of sorghum, and the manufacture of syrup from it, both from Napa and Yolo counties. The yield of syrup is reported at two hundred gallons per acre, and the crop labor equal to that of corn. This syrup is said to granulate when the unripe portion of the cane is cut off before pressing, so that only perfectly ripe juice is obtained. The suggestion has been made, that a mixture of this syrup with that from the beet root may secure more perfect granulation in both.

The course of experiments now being made at the San Francisco Sugar Refinery, will establish the value of the beet root, for sugar-making purposes, from different sections of the State, and at the same time ascertain the amount of syrup from sorghum, or from sugar cane, necessary to combine with it for a profitable result. There is said to be a plant or cane, indigenous to the region adjoining the Humboldt, from which the Indians manufacture a syrup that will granulate. If this statement be true to its full extent, it is well worthy the attention of some adjacent culturist. The culture of the hop has been successful and profitable wherever tried in our State; and will be certainly profitable to the extent of our home market, and of others, if properly cured and packed for shipment. The amount for the home market will be indefinitely increased, as the manufacture of our cheap barley into beer for export becomes a branch of Californian business. The consumption of English beer and ale in Eastern regions is greater than that of lager in our own State; and there is no reason why, in time, we should not have a share in this profitable business.

Tobacco, also, has met with success and profit to those who have experimented with its culture, which, so far as all present experience goes, promises to be an article of general profitable culture. The cultivation of hemp has been made in Alameda county with profitable result, as one might infer from the figures of the crop as published. A large portion of the rope used in the State might be of this manufacture, with or without tar. Aside from the value of flax, which it has maintained through so many ages and people, and the common use of its oil product, the new discovery of a cheap method of cottonizing its fiber, if successful in its application, renders its culture of value to California, from the ease with which we can use this fiber in manufacturing with wool. At an agricultural meeting in New York, when this subject was under discussion, it was stated the ton of flax would yield three hundred pounds of cottonized fiber, or four hundred and fifty to six hundred pounds to the acre, at an estimated price of eight cents per pound. Hemp culture alone would open out a large avenue to agricultural employment and manufacturing industry in our State; and any practical information referring to its culture or manufacture in any form here, will be of assistance in developing this opening to another industrial resource.

There are many crops which are only valuable, and will only command sale when enough of them are produced to pay a further outlay on them after leaving the producer's hands. Many such crops, though familiarly cultivated in other States, are novel in California; and parties who lack knowledge of the crop, or who are limited in means, hesitate to undertake their culture. The farmer who successfully raises any product new to our State, will do good service to the community in making known the details of labor and expense attending its production—which known, will sooner make his own knowledge and labor valuable, by having a commodity introduced in sufficient quantity to warrant a market and a further investment upon it. Such information, freely and frequently given, would do much to help along the cause of our State's agriculture.

Productions and Manufactures that are Legitimate Objects of Legislative Aid.

There are crops which from their nature, or from the circumstances under which they are raised, can be with great difficulty introduced into culture; yet once becoming a staple, are a source of benefit and profit, not only to the culturist, but to all other interests which go to make up the sum of prosperity and wealth of the State. In some crops in a State like our own, at a great distance from the manufacturing and commercial centers, the erection of buildings and machinery for their manufacture are required almost simultaneous with their production. If from their nature bulky, and low priced, at the commencement of culture they will not be likely to afford a profit over the charges of export; while, as a home manufacture, they would pay largely, the very charges avoided, in another form, acting as a premium on their production.

Such productions and manufactures are legitimate objects of Legislative aid, and deserve in their infancy the fostering care of a State government, to the support of which the agricultural interest of the State has so largely contributed. There are others which, on introduction, meet with ready sale and appreciation, to which the aid given by the agricultural societies is sufficient; and still others, which need not only introduction at the hands of government, but its fostering care through the early years of experiment, trial and acclimation to which all exotics are exposed. Under the first head may be classed the production and preparation of flax and cotton, and their after-manufacture of sugars from any product of our soil. Under the second, among other products, plants for dye stuffs, cordage, hops, tobacco, dried and preserved meats, soap, candles, tanned hides, boots, shoes, harness, wines, brandies, raw silk, etc.; and in the third, tea and coffee should be particular objects of attention.

The articles enumerated in the second class, with the exception of dye plants and home-made cordage, from California fiber, have already, in some shape, been introduced. There is a demand for dye stuffs now, and the cultivation for this purpose would be remunerative, as the success of the present manufacturing efforts warrant the expectation of a steady call for these products. The price of Manila hemp, which within the last few years has been even with the cost of its production, rules the price of cordage in this market; but should there, for any reason, be an interruption of friendly relations with Spain, the value of home production of fiber, for the manufacture of cordage, will be at once apparent. The manufacture of beer for export is a subject of material interest to agriculturists, as its success would so much enlarge the market for barley and hops; its consumption in what is usually called the Eastern World is enormous, and as our barley can be purchased by brewers at one-half the English rates, and as hops will soon be sold as cheaply as they are obtained in the countries now having the monopoly of that market, there appear no obstacles but those of labor and package against its manufacture here. We have yet little or no reliable data in reference to the culture, curing and preparation of tobacco in our State, (and would here respectfully suggest that while our agricultural societies offer liberal and large premiums for the production or manufacture of any product—no second premium is needed in such cases—which has a direct bearing on our new agricultural interests, the exhibit shall be accompanied with a detailed statement of culture or manufacture with cost, and such other information as shall achieve the object sought for, *benefit to the agricultural community, and through them the State.*) We are yet in the dark as to what varieties of tobacco do best in given localities, or best treatment. Another season, however, will probably find its culture and that of the hop on a very sure basis. In view of the low prices to which our horned stock are reduced, the salting and preserving meats, the manufacture of soap, oil and glue, and the tanning of hides, is an object of special and immediate interest. China opens to us a large and increasing market for salted and preserved meats. As steam is introduced on her rivers, the amount of shipping, commerce and European population there will be sufficient to use up all the surplus we cannot work off in other parts of the Pacific. If, with the preserving of meats, Californian hides could all be tanned and manufactured here, the difference in their value, and the increase of labor employments opened to an increasing population, would go far to relieve the stock business of its present features of uncertainty and loss. And the same with preserved fruits. Once these are added to our export trade, our orchardists will not incur a loss by the surplus of their product over the wants of a limited home market.

The efforts now making and that have been made, not only by individuals but by the State, through the Legislature and the agricultural societies, to secure a good wine product, will not only bring forth good fruits from the vines, but result in a stable prosperity to this portion of the State's agricultural interest, not only giving profitable employment and homes to a large population, but holding forth more inducements for immigrants than any other branch of our agricultural resources at present developed. This interest will amply repay all the fostering care which may be bestowed on it, either by legislative aid, or that of the agricultural associations. The culture of raw silk, or rather its production, is a branch of industry that is desirable, by liberal premiums, to foster into business life, as it would afford employment to many who, from feebleness of finance, age, past habits, or constitution, could not so well embark in other business. At one time it appeared as if the silkworm was to have all the rights of useful citizenship, but of late we have heard but little of his progress. A good round bonus on the first bale, or ten bales of raw silk, might stimulate his industry, and some thought to an enterprise and effort which would add a silk export to the wealth our State is deriviug from our agriculture.

Woolen Manufactures and their Market.

Editors Alta:—In my last letter, by some mistake of mine in writing the manuscript, wool and its manufactures were not mentioned as articles calling for special attention on the part of our agricultural societies: not that attention has not been given them, or the other products named in class second, but because a more general production and better manufacture give value to so many interests of the State with which they are directly or indirectly connected. Every pound of wool sent from the State saves the sending of its value in gold; every outward bound ship we load lessens the freight to us of the article we must import. Every bale of wool manufactured in the State, not only makes us less dependent on other States, but increases the value to the seller of that we export, and creates a home business which gives a market for our other farm products.

When enough of our own wool is manufactured here to meet our wants, our surplus will always be sure to bring the producer full prices; for, with such a home market, no combination of buyers for other markets could be made that would materially lessen the price here below the prices where manufactured, freight and charges off. Our own manufactures would always be working, less these charges, and have that advantage, as well as out-freight; an interest account over other manufacturers, enough in the aggregate, to offset their high labor account. When we manufacture for export, and the time is not very distant, there is still the first named advantage in favor of our manufactures, and if our market is Northern China, an additional advantage of eight months' time. There is a large demand for coarse woolen goods in Northern China and the adjoining countries.

The Russian all wool product, although burthened with the charges of a long inland transportation, are there in great favor, and undersell the English and continental importations. The probable secret is, the Russian manufactures are all wool, and experience has taught the economical buyers of that region their durable qualities. Is there not a chance for the California fabric in these markets? May we not manufacture all our coarse wools here and have the benefits to agricultural and mechanical interests the employment of so much labor would create? Next to the manufacture of agricultural implements, there is no progressive institution af the State in which our farmers are more directly or pecuniarily interested than in the success of the San Francisco woolen manufactories. [Our correspondent, who is a farmer residing in the interior, is not aware of the destruction of the Pioneer Mill.—EDS. ALTA.] Their success positive, and others will follow, not only for the manufacture of wool, but for flax and cotton, until we arrive at a home market which will so far consume our cereal and other products, that their value will be commensurate with the cost of production, and not as now crowded within that limit by a combination of buyers, through whom we have the only avenue to the consumption of our surplus crops.

The farmers of this State may buy as many goods from other States or foreign countries as they please, in fact, to the whole amount of their wants; they will not in return get one dime more for their produce in foreign markets for all the custom we give them. The argument might be used if we imported largely, freights outward would be less, and which would be worth something if this competition was all at the harvest season, when the low freight would be of real benefit; but as shipments to our port are scattered through the year, freights bid fair always to rule high when the demands for a foreign market are great enough to remunerate the farmer. Our safety is in a good home market, and every farmer who understands his own interest will patronize our own home manufactures; wear the California cloth, and home-made boots and shoes, when he can get them; use the home-made wagons and agricultural tools; in fact, do all he can to build up and make profitable home manufactures, and in five years' time there will be mouths enough to feed to make a respectable market for our products—enough, at least, to meet our most pressing wants, and allow us to take our own time on the sale of the balance.

As it now is, the California farmer has been, for the last three years, working wholly for the benefit of shippers and ship owners and their agents. Had he been working for his own, we should not see so much of our grain land lessened in value, so many improved farms for sale, such an increase of mortgaged country property, or so frequent sheriff's sales. Farmers, you may work industriously and live prudently, but your business is not safe, nor can it be permanently profitable without a better home market. That home market you can soon secure, if you will resolutely patronize home manufactures and no others. By so doing you will not only make a better market for the crops you now raise, but have the opportunity to raise others far more profitable ; your attention directed to this point, a little patriotism, and the power is with us to help ourselves. Without we use this foresight, without cultivation of a higher regard for our home manufactures, there will not, as years roll on, be much profit, I think, for those engaged in the present round of Californian agriculture.

The Growth and Manufacture of Sugars in California.

Editors Alta: — Among the articles deserving of legislative aid in their incipient stages, I mentioned that of the manufacture of sugars from any product of our own soil. At present, the principal sources of our supply of raw sugars, for after-manufacture, are from the Philipine Islands, China and Java, with small supplies from the Sandwich and Society Islands, and Central America. To the best of my knowledge, our principal supply is from Manila, that sugar holding a high place in all refineries. The sugar duty now levied is two cents per pound on raw sugars and four cents per pound on refined, and five cents per gallon on molasses, an ample tariff in favor of our own labor in producing the home-made article. In the event of any war in which Spain is interested, an immediate rise would take place in the value of sugars, at once affecting us, as her East India colonies are the source of our best supplies. So that at any turn of the political wheel, either in Europe or the United States, we may find this heretofore cheap necessity doubled in its cost. A production like sugar from the beet-root is necessarily slow in its growth and introduction—it required a Napoleon to introduce its culture in Continental Europe, and the most persistent after effort and nurture, on the part of the French Government, to make its production an unqualified success, its present amount being at the rate of 120,000,000 of pounds per annum, nearly one-half of the whole amount of sugar yearly consumed in France. There is no objection to the culture of the sugar beet on the farm, no crop will answer better for an intermediate, none that leaves the land in better order for an after crop, or may be cultivated with better economy of time or turned into a merchantable form with less waste.

Our legislators will do the California farmers good service, if by encouragement of the manufacture of beet-root sugar, the culture of this crop can be made profitable. The only objections that I have learned, to the culture of the sorghum, are the difficulty of eradicating the roots and needle-like sharpness of the fibers of the dry cane, injuring the mouths of cattle. Objections which can be got over if a steady yield of syrup, to the amount of one hundred and sixty to two hundred and fifty gallons per acre, may be counted on. The manufacture of its sugar, like that of the beet sugar, will need nurture. Much outlay of capital is required in all such undertakings, accompanied with no little risk. The processes of sugar manufacture from this cane, in nicety of detail, are yet to be learned. The better yield of both sugar and syrup is said to be obtained by crushing the cane immediately after cutting. Doubtless both this syrup and that of the beet will need some admixture of sugar from the cane, before it will crystallize without too great a loss of time.

The next point is—profitable culture of the sugar cane itself; so general is the belief that it can be done, that liberal legislative aid to make its production a feature of Californian agriculture, would give general satisfaction. Such aid, in addition to the enterprise of our people, is now more than ever necessary; the lack of profit in the investments made in stock-growing, grain and orchard cultivation, in the last few years, has disinclined our people to make large agricultural investments—in fact, any in which the returns are prolonged beyond a season. There appears to be no remedy in this depression, but in change of crop, and the crops which it appears most desirable to introduce, need manufacturing capital, enterprise and industry immediate with their production, to render their introduction either profitable or possible. If we examine the history of all countries where agriculture takes a high rank, we shall find the fostering hand of the Government aiding the early growth and manufacture of all new productions. If we look over our own country, we shall find the agriculture of those States in the most flourishing condition that have freely fostered the efforts of their agriculturists; or by direct purchase of fine stock, have not only benefited but doubled the ambition of their farmers to excel in the products of their fields and herds.

Our State Government has done, and is doing, much for the benefit of our Californian agriculture, but not a tithe of what our agriculture has done for the State, nor what its interests can, in justice, claim for its legislators. Whatever amount may be given in the way of bonus to stimulate into immediate life, in this early day of our history, such interests as those of which I am writing, will return to the State an hundredfold in taxable wealth and benefit to our people. Thus far our progress has been remarkable among the States and empires of the earth; make it still more so by judicious legislation, and we may develop our agricultural resources, until our mining wealth and export is entirely second to that of agricultural, not in the dim future for our children's benefit, but within the next ten years for our own. Wise legislation now will carry our agriculture by the check which the increase of cattle and the overgrowth of the cereal and fruit crops on limited markets has occasioned. Other crops can be made to take up, in part, the farmer's time and attention, lessening the difficulties and risks that now surround nearly all those engaged in our agriculture.

Flax-Culture—Advantages of its Introduction in our State.

Without due consideration of the difficulties which attend the introduction of a bulky, low-priced product into cultivation, where there is no immediate call for its staple in manufacture, and the length of time after its cultivation has commenced before the manufacturer would, under ordinary circumstances, be warranted in making his investment, it might appear that the call for legislative aid to introduce the culture and manufacture of flax in any country in the nineteenth century, was a step backward in the stage of human progress. True, the Egyptians spun its fiber when Moses rejoiced in the hail-storm that destroyed their flax and barley crops; that our great-grandmothers were proud of their linen, woven by their own hands, and that the good Dutchmen of Manhattan Island had crops of it as early as 1626; and it is none the less true that we want its production and manufacture in our California, for there is very little of our agricultural product we can move without bagging of some form, and there is little need of buying it abroad if we can manufacture it at home.

California has long been noted for her wool and hide exports, but it is only very lately that our wool, or our hides, have been manufactured here, and it is not desirable that so long an interval should elapse between the first crop of flax and its manufacture, if a good round bonus from our Legislature for the first hundred or thousand pieces of burlaps or bagging manufactured in a mill erected for the purpose, would give this business life and vitality within one year, or two at the most. It would pay the State handsomely on any investment the Legislature might choose to make, if such a bonus should stop all the payments we now make abroad for the bagging we require in handling our grain and wool crops, even if we did not look beyond this point for our exports. If precedent is necessary, we might take Russia for a guide, with the loom and spindle in almost every peasant's house, and an annual production of linen in that empire equal to 655,000,000 of yards; still the culture and perfection of this crop is stimulated by the government, by flax fairs, held for this special purpose, rewards for fine productions, and the distribution of tracts describing every new or better process of preparation or manufacture.

King Cotton has of late years engrossed so much of our attention we have been unmindful of the claims of Farmer Flax, and as just now we need some other large crop in California that will pay dividends in place of or intermediate with the cereals, it is a good time to press the claims of flax upon public attention. In commerce, the chief supplies of flaxseed are obtained from the Black Sea and the Baltic; there are importations from Egypt and from India, but not of so good a quality, being often mixed with rape and other seeds. The demand for linseed oil is so great, its adulteration or mixture with other oils is common. Our own demand for this oil will increase as our population surround themselves with the permanent improvements stability of occupation will call for. Thus there is a large home market open at once for the oil product, with opportunity of export of any surplus. Now, if with this demand, we can have one also for the fiber, then is its profit to the farmer on a secure basis, two payments out of the State stopped, and the embryo of another export secured—benefits sufficient to the State and people to call for that legislative attention which will render them immediate. But its benefit to us will not end in additional agricultural employment and the home manufacture of linseed oil and burlaps; with it, we can manufacture the coarse carpets and other fabrics we now import, and in time sail-cloth for our coasting fleet; mixed with wool, we cheapen and enlarge that manufacture; cottonized, and we are independent of outside supply for all articles of our daily wear.

The greatest mechanical and chemical skill is now being applied to these processes, which will cottonize it to a uniform staple. Success has been achieved, sufficient for all common manufactures. With a climate and soil eminently suited to its production, there is apparently no good reason why we should not at once have the benefit of its introduction into our State as a regular staple of agriculture and of export. Much may be done by our Legislature. A statesmanlike view of what will tend not only to the immediate interest, but to the future of our State's prosperity, in building up home products, remunerative employments, home manufactures, and all the after commerce which hinges on their success, would quickly double our population and the State's wealth.

The incoming Legislature, composed of gentlemen elected more for their patriotic devotion to our country and the Union than their fealty to creed or party, can in no way more surely make their mark in the future history of Californian growth and progress, than in wise efforts to open out and enlarge the great material interests of the State. If by such legislation the products can be introduced which home manufactures call for, they will at least have the gratitude of all the friends of agriculture.—*Alta.*

The Production of Cotton, and the Cost of its Culture in California.

Editors Alta:—Can cotton be successfully introduced as a branch of Californian agriculture? is a question of so much importance to the productive, manufacturing and commercial interests of the State, I would like to see the subject discussed by some other agriculturist, and by a hand more conversant with its culture than mine. The able editor of the Sacramento *Union,* in alluding to a sample of cotton grown in the Salt Lake region, from a crop which the Mormons are trying to make, of sufficient amount to furnish themselves with cotton goods, thus speaks of the chances of a growth of cotton in California:

"The alluvial land on the Sacramento and San Joaquin rivers, we are confident would produce excellent cotton. It is very much of the same character of the rich bottoms on the rivers in the Gulf States, which are considered the best of cotton lands. If the climate is suitable, land which will produce good corn will do equally well in cotton. The cotton plant sends into the earth a tap root, and in the bottom land on the Sacramento and San Joaquin, would find moisture without difficulty, particularly on the land adjacent to the mouths of these rivers.

Cotton needs a long summer, and after it gets well started, a dry one. In cotton countries the rule is, a dry season for cotton and a damp one for corn. The plant obtains a large portion of its nourishment from the atmosphere. In a wet season the weed grows large, but the bolls are not so plenty, and the great amount of foliage on it, combined with an excess of moisture, causes the bolls to decay before they are matured, and fall to the ground. In a dry year the plant will be found much smaller, but filled with squares, blossoms and open bolls. After cotton bolls begin to open, which they do when matured, somewhat like the burr of the chestnut, the plant will present the forming, square, the blossom, the boll, and the open boll, at the same time."

Almost simultaneous with the appearance of the above, a beautiful sample of cotton was exhibited in San Francisco, as coming from Visalia, "from seed brought from Texas, grown in sandy soil, irrigated, the stalks not strong enough to bear the weight of cotton, with irrigation, they might have borne it without, as so great a luxuriance would not have ensued." The *Union* editor, although so evidently right on the above points, I hope, for California interests, is not right in the following:

"As so much time and labor are required to make cotton and get it into market, we conclude that if the plant will grow as luxuriantly on the river bottoms in California as it does in Alabama, it will never be cultivated to any great extent, because of the continuous labor for a year which must be bestowed upon it."

This, as may be seen, contains the pith and gist of the whole matter, which is: Can the labor its production calls for be maintained here under our high rates of labor and short capital? And although I dislike to differ with one who evidently understands cotton culture better than I do, I think it can be done, and if the conclusions I arrive at are not correct, the discussion of the subject will at least do no harm. The cost of hired slave labor I have seen quoted from fifteen dollars per month, in Louisiana, down to five dollars per month, for field hands, in Virginia. Their board I have seen quoted from eighteen to twenty-six dollars per year, and their clothing from four to twelve. For present purposes, we will take the average of these sums, which will give the board and clothing of the slave at thirty dollars per year. Then come taxes, where paid, interest on investment and depreciation, whether from age, sickness, or escapes. We will call the interest eight per cent. on an eight hundred dollar investment, and the other charges the same, which will give a total of one hundred and fifty-eight dollars per year for the use of an able bodied slave, who cultivates his six acres of cotton and four acres of corn. Now, my experience of Chinese labor, in comparison with slave or Hindoo labor, is, under ordinary circumstances the Chinaman will accomplish as much as two slaves or three Hindoos, but as Sambo is under some inspiriting influences during crop time, we will assume the Chinaman would do no more than the slave. I think the Chinaman will soon be hired for fifteen dollars per month the year round, supporting himself. This at once brings his cost within twenty-two dollars per year of the slave labor, but as this is only supposition, we will take the amount at which he can now be hired, which is two hundred and forty dollars per year, boarding himself, and at a proportionate rate when wanted for a less time, with apparently no difficulty of securing any quantity of them at these rates.

If we deduct the time they are not wanted, when they can be discharged or employed at other labor, we reduce their wages very near to the value of the slave labor. If we make an allowance for the spare mouths to be fed, in counting the plantation force, as part of the expense, we arrive at very near the same result. As the Chinaman does not have to be fed, only grain enough for the teams would be required on the farm, leaving him his whole time for the cotton, which, if planted of two qualities, a part on dry and part on moist soil, might be worked on a longer season. The next point is the security of having him when wanted. That point can be reached by stipulation that the first two or three months' pay shall be kept back until the contract time expires. This method is effectual.

With our long planting and very dry seasons, cannot the cotton tillage come up to the full ten acres to the hand? Is not the season and the ease with which our soil can be tilled, an advantage which counterbalances the apparent difference in cost? I say apparent, because I believe, in practice, the Chinaman under wages will do enough more work than the slave to make up all the difference. Then next comes the objection of freight and transport, which is quickly settled, for wherever cotton can be raised in our State, railroads may be made to the rivers, as a cost so cheap per mile, each planter might almost command his own. The question of its manufacture I have taken up in another article; that and its market, I have no doubt about. The only question is, can it be made a profitable branch of California agriculture.

Chinese Labor as Adapted to Cotton Culture.

Eds. Alta:—In my last letter I made some comparisons between the cost of slave labor and the prospective cost of Chinese labor, as applied to the cultivation of cotton. The question of the utility of Chinese labor is not only an important question now, but one which each year will assume features of greater importance, as our commerce with China acquires the strength which is marked for it in the role of California destiny. The same treaty which secures our people the right of business, traffic and residence in the Chinese empire, secures the Chinaman the same rights here. If we have made a bad bargain, or their being here is an evil, our only resource is to make the best of it. But have we made a bad bargain? In my opinion, we have not; for as the China rivers open to our trade, as steam belts the Pacific, and the railroad girdles our mountains, China will do more for us, and give employment to a far greater number of our people than we shall give to them. Are they an evil? If so, we had better guide them into those occupations and employments they are best adapted to, and wherein their competition will be the least with any other labor; and out of evil extract good, for every bale of cotton or tobacco, every bundle of cane or barrel of rice we can make them raise, gives either labor or business for our own people, or profit in the shape of lessened expenditure. If we can make them raise cotton, we will have labor and profit in all the machinery of its cultivation, transport and manufacture, employment for our shipping, and after profit in the sale of its manufactures to their countrymen. There is no raw material we can make them extract from the soil, which will not afford after employment and profit to our own countrymen.

The next question is, how to get them at it. A leaf from the book of our grumbling cousin, John Bull, in India, may help us to the happy thought. The English cotton spinners have, in some parts of India, erected gins and presses, and purchase the cotton from the peasants as picked. Why may not gins and presses be erected in some central location, suitable for the production of cotton; land broken up and leased to the Chinamen for its cultivation; the product, as picked, be bought of them at a stipulated rate, having regard to quality and cleanliness; and the same with the cane or any other product it may be deemed desirable to turn their labor upon? Can we not, by this or some similar scheme, make their presence a blessing, and give our State what is so much needed — a material for home manufactures and a valuable export?

In the Australian colonies, of so much value does the introduction of cotton culture appear to the Colonial Government, that a bonus is offered of fifty dollars per bale for the production of the short-stapled, and one hundred and fifty dollars per bale for the Sea Island—a result which is expected to be arrived at by the importation of coolie labor. We have them here, without this trouble, and as the question in the State's political economy is under discussion as to what is best to be done with them, my own idea is, either by hire or lease, to get them to planting cotton, or any other productive employment which the prospective continuance of the high rates of other labor forbids our introducing without their aid. We cannot, while our mines afford good payment to day labor, expect the monthly labor of the white man to recede far below present rates, which, while they continue, are an effectual bar to the production of any article which requires low-priced continuous labor. And while this state of things continues, the scope and avenue of the employment of that same white labor must be limited, except in the mines.

I have shown in the previous articles the agriculturist cannot be prosperous without a change in his products, and unless this large class of our State's population are prosperous, the withdrawal of their demands in other branches of business must be sensibly felt. Create a home market by any cause so that the agricultural community reap fair returns for their labor, and every other business, commerce or employment will reap the benefit of it; keep the agricultural business depressed, and not a merchant, mechanic or laborer who will not sooner or later feel its effects. Our true course is to take full advantage of the means thrown in our way, and to use the low-priced Chinese labor—or Chinese nuisance, if you will—to produce these raw materials, which will make employment and profit for our other labor, business for our cities, commerce for our ships, and a home market for the productions of our agriculture.

Culture of Coffee.

Editors Alta: The introduction of coffee into our State is a matter which would not only require legislative aid at the outset, but in its nurture, until the plants were acclimated, and experience had fairly designated what portion of our State is best adapted to its culture. Its introduction should have legislative aid, because an exotic, which is already an article of successful commerce, when introduced by individual enterprise, does not promise one tithe the profit to the first cultivator which its presence confers upon the community. Its introduction and culture in different parts of the State, through its time of acclimation, and the five years it requires to bring the plant in full bearing, would manifestly be at great outlay and expense to individuals; while success in any one quarter, would confer immense and lasting benefits to the State and nation.

I do not mean by legislative aid, that the State should establish coffee plantations, or pay the traveling expenses of those who would like to visit foreign lands for coffee plants, but that a very liberal bonus or premium should be offered for the production of the first one thousand pounds of coffee in the southern, also in the central portion of the State, leaving individual enterprise to do the rest. Our Legislature will then make no mistakes, and incur no outlay, for which the State does not receive more than an equivalent. Let the reward be large; the State can afford to be liberal, and the people will do the rest.

We will now examine into the character of the plant, which will give some indication of the chances of success. On this point, the experience of its acclimation in other countries is of value, and that has been such that we may have strong faith it will kindly take to California soil and climate. The coffee is in its full perfection in those countries where the soil is not too fertile, but possessing a very dry atmosphere, and an intense light — an intense heat does not appear so desirable, for the coffee plantations of some countries have to be shaded. Moisture at the root is necessary, and its cultivation at considerable altitude practiced.

Of the region of California adjoining the bay, Vaca valley, and the upper part of the Napa valley, appear to best fulfill these conditions; but, probably, some locality further south will be found more desirable than either. The plant bears a considerable range of climate, as its successful cultivation at the La Plata and Cape of Good Hope would indicate, for the climates of both these places are in strong contrast to that of Abyssinia, the country of its origination, or of Arabia, from which country it was introduced to European knowledge and notice. Its powers of adaptability and vitality are sufficiently shown by the fact, that nearly all the coffee of commerce can be traced to its origination in a single plant, procured from Arabia by "Van Hoorn," the Dutch Governor of Batavia, between 1680 and 1690. Coffee, though long in use by Eastern nations, does not appear in London until 1652, nor in Paris until some time after. But to see how readily the coffee plant adapts itself to new localities, and also the changes in quality of the berry made by soil and climate—how the berry becomes large and the flavor is lessened in a very rich soil, while the berry is small and the flavor rich in a more favorable locality—we have only to follow the offshoots and berries from Van Hoorn's Arabian plants.

A plant was sent from Batavia to Amsterdam in 1690. From this, in time, another was sent to Paris; from Paris seed was sent to Martinique and the Mauritius. We now lose direct track of it; but it is easy to conceive the seed from Martinique and the Dutch colony of Surinam, was spread over the balance of the West India Islands, and down the coast of South America to the Southern Brazilian provinces, and was also taken to Central America, and then down the west coast of South America to Chile; that the seed from the Mauritius furnished Madagascar, Zanzibar and the Cape Colony, and that the Spaniards obtained their seed for the Philippines from Batavia. On the Pacific, the Tahiti plants were from Chile; and from the Society Islands are traveling westward, being now colonized at the Fejees. The Sandwich Island plant may have been obtained from Manila, Batavia or Central America, the nearest coffee countries—tracing directly or indirectly nearly all the coffee of commerce to one plant, showing unmistakably its vitality and power of enduring sea voyages when necessary.

The plantations we are most interested in, are those of the River Plata, Chile and of the Cape of Good Hope, from the greater vicissitudes of climate to which the coffee plants are there exposed. There will probably be little difficulty in obtaining the range of temperature at the coffee plantations of the first two named countries, as many of our citizens are familiar with them. The extremes to which the plants are exposed are probably greater at the Cape of Good Hope than any other coffee country. A range of mountains covered with snow forms one of the boundaries of the Cape Colony, and a warm ocean current sweeps along another. These causes must create more vicissitudes in that climate than ever occur in those parts of California to which we might wish to introduce the coffee plant. It is safe to infer that a plant which flourishes at the Cape of Good Hope, and exists in the latitude of thirty-four on the east side of our continent, will conform to a range of climate found in four to six degrees higher latitude on this side. So much for the chances in favor of an undertaking pregnant with so much of future benefit to the State and nation, and which, under proper legislation, can be achieved for the State without any cost, except in the event of its success. The question is: Can the producers of this State have that liberal legislative support that will encourage their enterprise, until these novel productions to our State are added to the wealth of its agriculture?

[Note.—Since the above was written, we notice there has been a successful growth of coffee in Illinois.—Ed.]

The Culture of Tea.

Editors Alta:—The introduction of the culture of the tea plant in our State now, is merely forestalling an event which soil, climate, situation, commerce and population all conspire to show is one of the facts of the future. Our commercial relations with Northern China, the daily intercourse, business and manufactures, marked on the scale of time as one of the chief pillars of the greatness of our State, would bring this about from the familiarity of intercourse and production. The Chinese population our gold has brought to us will, in time, naturally turn to agricultural pursuits, giving a first attention to those products with which custom in their own land has made them familiar, and from their rarity with us would promise in their cultivation great resources of profit; so that in moving now to introduce the tea plant to our State, we are only obtaining for ourselves what our children would have without such legislative aid as the effort will now call for. Tea was introduced into the United States in 1848, and a small plantation made in South Carolina. The early reports of its success were all favorable, and doubtless would ere this have been a feature of our national agriculture, but for the great success of the culture of rice, tobacco and cotton, affording such large profits to the region of country in which it was introduced as to leave but small desire for other crops.

The climate most congenial to the tea plant appears to be that between the 25th and 33d degree of latitude on the Asiatic coast; that it will bear a more severe range of climate is shown by its culture in Japan and the Himalayas; that it will bear a greater heat, its culture in Cochin China and Tonquin as an article of commerce, and also as a garden shrub in Singapore and Penang, where it is exposed to equatorial heat. The last experiment of its culture, fostered by the English Government at the Himalayas, appears eminently successful. At an agricultural fair held during the last season at Jeedarling, eight samples of teas were offered in competition from different plantations, which were pronounced equal in quality to the best imported teas. The best evidence, however, of its success is in the fact that the private investment in its culture, which had already reached 1,600,000 rupees, was increasing, new plantations having been started.

The Dutch Government, however, with the commercial shrewdness which characterizes that people, have successfully introduced its culture in Java. The annual report of 1857, of the productions of that colony, show an export or growth of 2,000,000 English pounds of tea, and that the tea plantations contained 14,729,700 tea shrubs, giving employment to 110,000 families. These instances show that tea plants can be readily accustomed to a wide range of soil and climate, that the secret of its culture and preparation cannot be hard of acquisition, when the Javanese and Hindoos so readily acquire it. The next question is of profit and competition with low-priced labor. It would seem almost the rule in all low-priced labor countries, that freights and transport are enormously high. China is no exception to this rule, and the transport is farther burthened with heavy local duties and charges, as well as export duties at the port of shipment.

When China was at peace, the freight alone on tea from the interior was accounted at four cents per pound. Mandarin exactions could not be counted at any less. If we take merchants' profits at the same rate, shipping freight and commissions, etc., four more—making twenty cents per pound—which add to our duty of fifteen cents, and we have a total of thirty-five cents per pound, more or less, in favor of the home production. Now, in regard to the best method of making it at once a

California production, my own idea is that a very rapid and sure mode of its acquisition will be to offer a round bonus to that China house which shall first produce one thousand pounds of good black tea from shrubs grown in our mountains, and another for tea grown on the plains. The object of the double offer is to secure its culture in different parts of the State, and turn the Chinamen's attention at once to this business.

If we arrive at making it a Californian production, on the plan proposed, we divest the operation of all features of risk; we bring in play all the shrewdness, skill, and knowledge of its culture the Chinaman possesses, and take the first step in placing this class of our population in an employment in which there is no competition and interference with any other. Increase the stimulant by allowing them to choose any piece of public land for their experiment, make the bonus liberal, let them understand the competition is free, and my full belief is, the sons of Shem can be soon made to add to our State's wealth far more than they have extracted from our mines. It will be a happy day for California when this increasing population of Chinadom can be made to add their knowledge and labor to material sources of wealth and profit to the State in developing new branches of our agriculture.

The Conclusion of Letters on Agricultural Interests.

Editors Alta:—I have now gone pretty well over the range of farm product, of what we have raised and what we may raise, although not embracing all the crop we have cultivated, or may produce, nor have I spoken of the root and vegetable crops which experience has confined to certain localities, but I think I have gone far enough to show that the farmers need, and can command a greater variety of product, and that the continuous culture of the cereals on the same soil is neither practicable or profitable. I think the farmer has no right to expect that so long as our mines continue profitable, the wages of labor will fall more than twenty-five per cent. from their present standard. Twenty-five per cent. will reduce the cost of cultivation, "say" one dollar and seventy-five cents per acre on average farms, a reduction not great enough to render general grain farming profitable at the prices of last year's harvest. Again: while we look to export demand for the sale of the larger portions of our cereal crops, and also while the farmer is obliged to look to the sale of these crops to meet his current expenses, he cannot expect prices, as the rule, will range above those of the two last harvests. The exceptions are—very short crops in this State, or the demand brought about by war, or short crops in other States. The demand in the Northern hemisphere is not felt or made until September and October, just when the California farmer is thinking about a new crop; this demand, and consequent rise in price, has not been infrequent, but it is invariably too late for the benefit of the great mass of California farmers, as the price at harvest fixes their scale of profit or loss for the year's labor. On the contrary, the rise in price is generally at that season to best encourage him to renewed exertions, which in the past have proved like the swamp lights followed by the benighted traveler, only the means of bringing him deeper into the financial quagmire of short crops and low prices. It is evident only large crops of cereals will pay to raise; from old land, large crops can *only be raised by judicious rest, manure and fallow*; the fallow must be made to pay, for the profit of a bountiful cereal crop is not enough to pay two years' labor.

The *crop must be diversified*, so that some crop which has a local demand can be used to meet the current expense of the cereal crop, that the grain may be held until the foreign demand springs up in the fall and winter. *A home market must be created by the patronage and use of Californian manufactures*, for local, intermediate, perishable or fibrous crops. A lower range of interest must be made in the agricultural districts. This can be done by the establishment of savings and loan societies in every agricultural county. There appears to be no other mode in which the dormant tens and hundreds of the agricultural districts can be combined into the thousands which would lessen interest, and be, in reality, to the farming communities, what they are, nominally—their capital. The farmer's business should be rendered more *secure*—the present attachment law constantly leaves it at too great a risk. This law should be modified so that the *first attaching creditor attaches for the benefit of all the creditors;* make it all the creditors' interest that property should not be sacrificed. No farmer can pay his debts, no agricultural community can prosper when in the event of short crops, or low prices of produce, the farmer's grain may be sold by the Sheriff for one-half its value, his stock at one-fourth, and his tools and material at one-tenth or one-thirtieth of their cost or value to him.

If any class in our community want this law for their own benefit, let them have it; but let us, as farmers, take care that no representative of ours gets our vote the second time, who does not try, at least, to cut short its application to the agricultural districts. Next, the matter of taxes needs our attention; the tariff of State expenditure was made when money was plenty and business good. I know of no good reason or service rendered by any official that calls for a salary equal to the earnings of the year of from ten to thirty farmers and their families. I believe in liberal payment to public officers; but I do not believe in paying them, and expending, in other ways, the whole net income of some districts, which is very near the case, though strongly put, at the present scale of profit of the labors of our agriculturists. Lessen the labor of your officials and the trespass on your own time, by lessening the number of courts held each year in the agricultural counties.

Secure control of your own county affairs, by changing the time of your local election. As it now is, with the election just at the close of harvest, the affairs of agricultural counties are too often controlled by the votes of irresponsible strangers. Impress upon the Legislature that, while lessening unnecessary expenditure, and giving the Federal Government all needful and possible aid, the necessity that exists that some present and prospective outlay must be made, which will directly benefit the agriculturists, and through them the State, in assisting the introduction of crops, and their after manufacture, which have as yet no home with us. Farmers, if we help ourselves in the way I have first named, and make others help us in the way I have last written, we shall, in the opinion of a journeyman farmer, have learned "how to make farming profitable;" and in writing these letters, I trust I have assisted in the sowing of seed which will bring forth a profitable crop, in thoughts, that will benefit Californian agriculture.

APPENDIX.

An Appeal for Legislative Aid to California Industry.

It may not be improper for an individual whose occupation is solely that of agriculture, to thus call the attention of his State government to the depressing circumstances under which this great interest now suffers; and in a measure, to point out a policy, which, in his judgment would go far to lessen this depression, and in time accomplish an adequate relief. For this sole object has this pamphlet been published, and placed before the California Legislature, written in such spare moments as other occupation has afforded; its pages do not contain a tithe of what may be said in regard to the great interests of our State on which it treats; but if in them may be found enough of fact and argument to enlist favorable legislative consideration; to enactments stimulative to greater diversity of crops, and more of self dependence on the productions of our soil and workshops, the end and aim of the writer will have been accomplished. It is necessary these interests should receive attention from the State governmont on account of our relations to the other States in matters of business, and from some peculiarities in our own Constitution.

A stringent tariff compels our purchase from the other States of the Union the bulk of the articles of our daily use. Our situation makes this tariff, (always treating the subject in a business point of view) a benefit to them and against the people of our own State. This same distance from the other States, and want of proper mail and steam communications, renders anything like fair reciprocity of trade impossible. Thus we bear our due proportion of the expenses of the general government, without the full measure of its business benefits; our contribution to the business interests of the other States being always far greater than their contributions to the business interests of California.

Next, our State constitution requiring a metallic currency, and the other States having a paper currency, values, exchanges, time and interest are always against us in business transactions. The wants and necessities of a young country constantly compel our purchases to be far greater than our sales, creating a steady drain of bullion for which we scarcely have a choice of market, that keeps our currency short, capital limited, and the current rates of interest high.

Whenever our industrial forces produce more of any given article than our State can consume, the price of that article in the lowest labor countries must set its value here, and as these values are seldom remunerative to our producers, we will under the present system of agriculture in our State frequently find ourselves in a business depression, onerous in the same ratio with the energy of its prosecution.

The consequences of this combination of circumstances are bringing about a disinclination and timidity in new investment, and a feeling akin to discontent. All those who closely scan the business interests of our State, will find the desire of change and better progress a predominant feeling. This is more particularly the case with the great agricultural interest; individuals in that occupation now too frequently paying their taxes from their capital instead of from their profit; while it has in a measure lost those features of safety and permanency which accomplish so much for the stable prosperity of the community.

Thus, while the occupation of a large class of our present population has for a time ceased to be remunerative, the avenues of employment to the new-comer have not increased, a fact which will readily come home to all those who endeavor to find business or employment for others.

None are so blind to the interests of our State as not to see how all the above enumerated disabilities press upon our resources and progress; none but desire that a change for the better should be brought about. The only question is: How and in what manner shall this change be effected, and the desired good accomplished? It is an anomalous position—one in which, in all respects, I have learned of no similar instance; the nearest, perhaps, was that of the Spanish American colonies. Its results to them convey sufficient warning for us to avoid the example. It is a position in which none of the old arguments of free trade and tariffs are applicable. Our business and all our imports are taxed under three tariffs—that of the General Government, that of metallic currency against paper, and the extraordinary rates of interest, all inevitable under our present and prospective circumstances—a state of affairs which must have legislative consideration, for it is one which has been mainly brought about by constitutional provision. They are circumstances which admit of present control, and are also circumstances in which to a great measure change is not desirable, for both tariff and metallic currency have their very great advantages; but what is wanted, *is the one step farther in our State's progress, which will neutralize their bad features and leave us only the good.*

This the writer believes will be arrived at by liberal premiums from the State, that will encourage and warm into life new production from both our soil and workshops. We only want the plant above ground; we only need to hear the ring of the hammer, and the hum of the wheel, and the object is accomplished, and the State's further aid is unnecessary. For it is a happy thing for our California that once any growth or manufacture obtains a foothold with us, distance from other States, time, interest and freights are all a special dispensation in its favor, and sufficient to secure its success. It is the initial step, the germ only, our State government has to foster, to accomplish all these desired objects; and the appropriation required for this purpose bears not the remotest comparison to the magnitude of the popular interests to be benefited. It is in truth casting our bread upon the waters, to return in a few short years in a diversified employment and business to a stable population, and a threefold increase in every element of our prosperity and taxable wealth. By it we will secure employment for our workers of every grade—on our lands, in our workshops, on our roads, and on our ships. We will decrease our imports, enlarge our exports, chain capital here, draw wealth from other lands, and build up homes, villages and cities from an immigration ever welcome to an abundance of remunerative employments.

Are not these objects worthy of a statesman's care, and legitimate subjects of legislative interest? I believe the gentlemen who now control, by their votes, the interests of this great State, will see this matter in its true light of great general public interest and importance, and will make such enactments as will meet the wants and desires of the agriculturists of this State, and inaugurate a policy that will so much enlarge the social and business interests of California, that their session will be gratefully remembered long after local issues and legislation have been forgotten in the lapse of time.

With all respect, gentlemen, I beg leave to sign myself a representative of

CALIFORNIA AGRICULTURE.

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Jan 22. 77

CALIFORNIA SEP 23

A LETTER

Supposed to have been abstracted from the Office of the

Oroville and Virginia City Railroad Co., at Quincy,

By GEAR AND CORNELL, of Counsel.

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CALIFORNIA SECTION

"THERE is nothing I hate so much as cant, of all kinds; it's a sure sign of a tricky disposition. If you see a fellow cant in religion, clap your hand into your pocket, and lay right hold of your puss, or he'll steal it, as sure as you're alive; and if a man cant in politics, he'll sell you if he gets a chance you may depend. Law and physic are just the same, and every mite and morsel as bad. If a lawyer takes to canting, it's like the fox preaching to the geese, he'll eat up his whole congregation."—*The Clockmaker.*

◆

And I stood on the mountain top. And in the distance I saw Peter approaching. And I raised my voice and cried aloud

"There comes a lawyer, an honest lawyer too, a rael wonder under the sun, as straight as a shingle in all his dealings. He's so honest he cant bear to hear tell of other lawyers; he writes agin 'em, raves agin 'em, votes agin 'em, they are all rogues but him."—*Ib.*

24,947

OFFICE OF THE

Oroville and Virginia City Railroad Company,

QUINCY, January 14, 1869.

To His Honor:

P. VAN CLIEF,

DOWNIEVILLE:

Permit an old and valued friend to condole with you on the disasters that have recently overtaken you on the paths of jurisprudence; and to convey to you, in as few words as the magnitude of the subject will permit, the hope that in the consolations of religion you may find a balm for your wounded spirit (failing My dear Peter, ever bear in mind, in the midst of your afflictions, the trite saying that " virtue never meets with its reward on this earth," and gather consolation from a knowledge of the fact that they who are borne down for righteousness sake in this world will, in the next, occupy a high place.

I am led to indite this by the careful perusal of an article that appears in the Plumas National, of December 12th, 1868, bearing your signature, addressed to the Attorney General, and labelled "Judge Vanclief on Fraud"—(as experience is the best of teachers, your qualifications to write on the subject are unequalled). Your despairing cry, coming up from the deep bowels of the National, in six columns of printed matter, ushered into the cold world under the auspices of the editor of that widely circulated sheet, admonishes me that your sufferings are great, but at the same time brings the consoling assurance to my mind that your good judgment still remains, and that your great intellect is still unclouded, for had the reverse been the case you would not have exercised the discrimination you did in the selection of a "midwife" to deliver you of your progeny. I can but trust that the pains of labor have left you in as good condition as the "circumstances of the case admit of."

I learned, with regret, that at the late term of the District Court of Plumas county you and your hopeful associate were beaten in all the cases in which you had hoped to make much profit, and I fear from a life-long knowledge of your character that you lost because the "mail" that surrounded those cases was "black." If this be so, it but adds to my confidence that your faculties are still unimpaired, for I see that you exercise a commendable wisdom in taking those cases before the editor of the National, on writ of error; and I daily look for the "thunder bolts" wielded by the jurist who presides over its columns, to announce to an astonished world that the decrees of the Courts have been on that writ reversed, and you and your associate invited to enter *ad libitum* "on the hoped for fields of plunder." Especially do I commend your course in attacking the Judge because you lost your case; it has a two-fold effect: it throws dust in the eyes of those who might otherwise attribute the result to your own stupidity, and at the same time establishes the fact that you are a great lawyer—for upon referring to history we find that it was always the custom of great lawyers, like Erskine, Webster or Choate, when they lost a case, to appeal to the popular prejudices through the press, and that it ever has been held the very hight of professional etiquette for lawyers to attempt to bring into contempt the administration of justice; you having done both, can any reasonable man have the face to stand up and say you are not a great lawyer, well grounded in the profession and fitted to appear in any capacity in all the Courts! I unhesitatingly say they cannot, and urge you that in case Judges Belcher or Sexton do, in jealousy of your pre-eminent abilities, ever seek to "squelch" your "lights" under a bushel that you always, as in this case, have the nerve to let the whole community know what fools they are, and how great is the "Diana of Ephesus" they would destroy.

My dear Peter, I can well imagine the feelings of Judge Sexton when he opened the National bearing over your sign manual the broad declaration that "you had no confidence in him." I can see rise before me the scenes of terror and despair at his home; his weeping children, his disconsolate wife, grief stricken with none to comfort; he I see with all the just ambitions of his life blasted, the laurels that twelve years of judicial life had garnered about his brow withered and scattered by one brilliant dash of your exhaustive pen, the memory of his prosperous past but left to blight with its recollections the hopes of his future. Oh, Peter, while the world will admit the justice of the stern decree, they can but exclaim "was there not one 'bowel' of compassion in Peter's heart; were they all exhausted in the manufacture of the casing for that stony organ." Oh, Peter, how could you be so cruel—you might have prepared the Judge's mind for the blow; you might, in mercy, have allowed him to steal away to some desert spot, and there, shut out from the world and deprived of every comfort of society, in lonely misery brood over the enormity of his offense (deciding a case against you), and endeavor, in part, to expiate it by repentance and prayer. But, as Rome could not brook the rival Carthage, so your great mind could not abide poor Sexton's contradiction. As Rome decreed that "Carthage should not exist," so you, following that illustrious example, ordered that Sexton should die, and on the 14th day of December, A. D. 1868 (the date of the arrival of the National), a traveler passing by where once Oroville stood would have beheld the President of the O. and V. C. R. R. Co., like Marius of old, in the desolation of his soul, weeping over the ruin your hand had wrought.

How sad the thought my dear Peter that we must have bad Judges, but it will be so as long as a choice is allowed to the people; poor infatuated masses, they can not see infirmities or appreciate genius; our only hope lies in an amendment to the State Constitution, giving you the appointment of the Judges. This would be the *shibboleth* of our safety. How nice it would be; you could appoint Gear in Plumas, C——n in Sierra, and have a Supreme Court of appeals, composed of one Judge, and confer that position on the Editor of the National. Then, Peter, if you could only get rid of the cursed juries (and that difficulty might be obviated by allowing Gear to summon them or by the appointment of Cornell as Chief Marshall), you might occasionally win a case; but as long, my dear friend, as the people will elect such men as Belcher, Sexton and Sanderson, I fear your chances to make much money in the class of cases you have recently indulged in, will be very slim, and I much fear the people will never change in their folly. They have elected Sexton three times, and each time (would you believe it) he ran far ahead of his ticket, and between ourselves, I fear they will elect him again. The People have had opportunities to obtain fine legal talent on the bench, but they have always failed to avail themselves of these opportunities. Only a few years since, when the political party to which you belonged had about fourteen hundred majority in the district, you condescended to accept its nomination, but you at the election ran behind your ticket, about seventeen hundred votes, and your tendered services were endorsed by unappreciative electors, "respectfully declined" Peter, when your party nominated you, it had a large majority in that district. I am pained to say it never has had a majority since. The immense weight of law you had stored in your head (it must be there), was the hair that broke your party's back—it died of too much Peter. But taking this instance alone, it might be said that the failure of the people to employ you to wear the "honors judicial" was not conclusive evidence of the correctness of the opinions *we* have since that time entertained of an elective judiciary. If any are still skeptical, we will ask them to cross the Plumas County line (by the way, I believe the Supreme Court first opened your eyes as to where that line was), and will point them to the huge form and massive brow ("upon which pensive thought has left her trace") of the Editor of the National, that mighty man of law who registers your edicts and who sets asides decrees and judgments at his will as readily as the tired child puts by its toys, and we will say he too, "at a later period in our countries history," offered to sacrifice his convenience and serve the people in a judicial position, and though his party was greatly in the ascendency was beaten by a (——) copperhead. When our skeptical friends gaze upon these two remarkable instances of self sacrifice on the one side and ingratitude on the other, they will be cured of their skepticism, and as they depart wiser if not better men, may well, in the language of our friend Judge H——n, exclaim, "*Sic transit gloria mundi.*"

I was pleased that you in "swinging around the circle" took occasion to read Attorney General Hamilton a sound lecture. Those Sacramento lawyers think they know everything, but your letter will take the conceit out of Jo. Hamilton and let him know that there are some folks in the mountains who not only "know all the law there is," but who can "norrate it from the stump." I can see the Attorney General, when he came to that portion of the letter where you tell him he "mistakes his duty and don't know any law;" when I say I can see him, I mean in imagination, for immediately after you "fulminated," he left Sacramento and retired to the classic shades of Auburn to meditate over the uncertainty of all earthly honors. If ever he comes forth from the obscurity into which your "manifesto" has driven him, it will only be to resign his office. (Peter, suppose you apply for the appointment; you might take the office by *appointment* and restore its pristine glory), Hamilton never said a word about your letter as long as it remained in manuscript (between us, he is from Missouri, wonder if he can read *riting*); but when you printed it he bolted—it was too much for Jo, and through all time to come it will stand on the records of his office a warning to future Attorney Generals, not to fool with you. Dear Peter, the State has long needed a censor to show up to advantage the ignorance of its officials, and has at last found one in you. Until you "fulminated" every body thought Sexton was a good Judge, and as far north as Colusa, Jo Hamilton was esteemed a lawyer and a gentleman; but you opened people's eyes to their infirmities, and to use a familiar expression of yours, "effectually cooked their goose."

But Pete, I had to laugh when I came to that part of your "manifesto" where you said you were "forced into trial unprepared." A few lines before you had said you always expected to be beaten, and a little further on you say you were beaten. Evil minded people, putting those declarations together, might say you were not only fully prepared for trial, but that on the trial your fondest expectations were more than realized; that you were beaten even easier and worse than you expected; but what of the people; they can't understand fine language, and don't know what logic means. Peter, some folks, however, do say that in that suit you came to the scratch rather shaky. There are little whispers about your having made an affidavit for a continuance in which you swore that you could prove "black was white" by four several witnesses whom you fondly imagined could not be found; that defendants much to your surprise did find them and they persisted much to your disgust in swearing that "white was white" and "white" no color at all; thus showing that you were *mistaken* in your "affidavy." If it was this untoward event that "knocked you out of time" you ought to have moved for a new trial, on the ground of surprise, (suprise at seeing a stranger—truth), and given Sexton the devil when he denied it to you; but in looking over the papers in the case I find that if you were unprepared your associate was not in the same fix: he swears continually, and the case for plaintiff rests upon a "mass" (it looks blue too), of his testimony that shows him to be as good a swearer as he who bore testimony against "my Lord Russell," and I cannot help but think his zeal made up for your "want of preparation."

The richest kernel in the nut. I found on reading further, where you say "we (meaning Gear and yourself) expended so much money." I, who knew how reckless and extravagant you both were in the expenditure of money for the public good, enjoyed this paragraph amazingly,and any one who is acquainted with either of you, especially with Gear, can appreciate the joke you perpetrated in that sentence; to any one that has no knowledge of your liberal dispositions, where the public is concerned and your pockets affected, it is not so apparent as it would be after an investigation of sundry and divers orders by the Board of Supervisors, in your behalf made and entered.

Still further on, in your "proclamation," you say you could "not see the spirit of the law." No, friend Peter, you could not, for between you and the beneficent "spirit of the law" was Cornell & Seabury's railroad, vast and ponderous in all its proportions, and your sight was obscured by it, and the County Treasurer's safe, which stood between you and the "spirit" of any law; but Jo. Hamilton saw, by the light of an honest man's oath, the pathway o'er which the spirit of the law shed its heavenly radiance. Your stand point was not the same, and I think you ought not to be too hard on poor Jo; he meant no offense, but in the simplicity of his nature held his oath of office binding on his conscience—therefore forgive him for he knew not what he did.

After effectually disposing of the District Judge and Attorney General, you stoop from your lofty pedestal and give it to "Bolinger, Chambers and Haymond." In your *gentlemanly* attack on them, you prove conclusively that you are the only honest man in the world, and I think this should be glory enough for you and that your very precious time was illy spent in attacking small fry. Peter, let those fellows live, and as they bask in the splendors of your genius and muse on the "awful virtues" you bear, it will be a comfort to you to know that you are not such as they; beside, my dear Peter, it is always imprudent, to say the least, to charge others with evil when there is no proof to sustain the charge, and bad people might begin to suspect that your repeated declarations that they were dishonest and you virtuous, were only made to enhance the value of charms you desired to barter away. The common people have an idea that "thieves are the first to cry thieves," and that same notion may some day pervade the higher circle in which you move, and when it does, if you still persist in finding wrong where right is seated, you subject yourself either to the imputation of want of ideas to conceive of instances of honesty that soar above the level of your own sentiments, or of suspecting others of something sinister and selfish, from the suggestion of your own sordid and vicious inclinations.

Bear in mind, my dear Peter, the maxim, "*Honi soit qui mal y pense.*" If, in the light of this maxim, one should dare to criticise your "production," it might be averred that you, in dwelling at such length on the evil, but hidden intentions of others, paint not their actions, but lay bare the course you, in their situation, would pursue, and it might also uncharitably be said that you show such a knowledge of the mode and manner of perpetrating frauds, as could only have been the result of the teachings of a life spent in ministration at her altar; but knowing you so well I treat the "proclamation" of your honesty and incorruptibility as a capital joke. Fun is evidently your *forte*, and as the editor of a funny paper you would shine—Artemus Ward, Orpheus C.

Kerr, and even Postmaster Nasby would fall before your powers, if you were to leave "black letter" and take to "Yankee Notions." If your "manifèsto" had been illustrated with cuts and sold for the benefit of Plumas County, it would have fully reimbursed that County for all the bonds it will be "swindled out of" by the Railroad Company. Let a host of your friends and 365 in the steerage, urge you to "proclamate" it in book form with appropriate illustrations; for example, let the frontispiece represent "counsel for plaintiff learned in the law," as they appeared at the interesting moment when they were compelled to go to trial in a case, "they knew they must lose;" in the margin of that picture, to show the "nature of the action," you might have a tracing of the armor worn by the "Black Prince;" next might come a cut representing the "Fall of Sexton and the Destruction of Oroville," taken at the moment of the arrival of your "proclamation" (it would save expense to get some old plate portraying the fall of Sodom or Gomarrah); then would come "Hamilton in his retreat at Auburn" (liveliest village of the plain); in this picture great effect would be attained by introducing a copy of the "National" in the fore ground (it generally gets in the *back* ground); then might come a cut exhibiting your view of the law, entitled "The Law without a Spirit," which would excite interest as well as convey instruction, and might in future times link your name in history with that of Columbus and other great discoverers. Then the assertion you make "that the O. & V.C.R.R. Co. are standing in the way of capitalists, desiring to occupy the route," in view of the fact that another Company has been formed who would take the route if you could have won your hopeless case, might be "capitally" illustrated by an engraving, styled "The Capitalists who desire to occupy the route," in which could figure the features of the "learned counsel for plaintiff, Seabury, Cornell, *id omne genus*, viewing the route from afar, saying:

"The year of jubilee is at hand,
And we're going to occupy the land."

In the distance might be represented Eleazer Light, "the man who has confidence in the new Company;" the "People of Plumas" would appreciate the "Capitalists," and I doubt not would, if the proper exertions were made, join in a "petition to the Attorney General," representing that hot stoves would be safe in their hands. In view of the further fact, that the "route" has been open from the time that "the morning stars sang together in glory," and not one dollar has ever been expended to make it useful, except by the O. & V. C. R. R. Co., it would be the thing to have a plate representing "the men of Plumas County who are anxious that the road should be constructed as soon as possible;" for this picture the Vernon House might be taken, scene three years ago, Hargrave and his barkeeper in the door waiting for business (i. e. for Bolinger and Chambers to come to town and take a drink), in the distance "Uncle Ben" driving in a cow with a "crumply horn." That part of your text where you say "the County pursued the R. R. Co. to the point of where it was convinced of success," would be appropriately illustrated by an engraving representing John Blood, Lev. Charles, Gear and George Cornell, as they appeared when the Court f-o-u-n-d for the d-e-f-e-n-d-a-n-t-s. The "honest endeavors of Counsel to protect Plumas County," might be strikingly shown by a drawing representing the "District Attorney sending George Cornell to the Railroad Company to ascertain if they would give him six thousand dollars to throw the case off;" and "counsel examining to see whether they will carry the suit further," could be made a decided hit, by representing them as peeping in the County Treasury, to see whether there was any more money left. If the book should be slim, you might fill up by inserting the names of the 269 persons who modestly claiming to be "the citizens of Plumas County," signed Gear's petition to the Attorney General; beside "helping to fill," it would inform many old residents of the names of "citizens" who don't appear on the "Great Register" or inhabit the County, as well as afford striking evidence of "life after death," for verily, if it be a genuine document (as it must be for you are all honorable men), did the dead rise from their tombs to sign it. These suggestions hastily made, show how prolific the theme and what a "big thing" could be made out of your "document" by a little enterprise; would it not be well to copy-right it before "Chambers, Haymond and Bolinger" capture it, for if they are after bonds it wont do to leave as valuable a piece of property as your letter *lying* around loose.

In your "treatise on frauds," while you pretend to give a history of the "great suit," you bursted yourself on (Peter, the time is past when men can run against railroads with safety—if you repeated the experiment the bull tried with the locomotive, blame but your folly if the result was the same in both cases), you omitted to mention (an oversight I suppose) an affidavit that cuts quite a figure in the case, and which ought to, in connection with your "lamentations," go down to posterity. I will assist you and rescue it from the obscurity in which your "oversight" left it.

Be it remembered that at the September term, 1868, of the District Court of Plumas County, P. Van Clief of counsel for plaintiff, desiring to have the "great case" continued, did make and file his certain "affidavy" wherein he did swear that "John B. McGee, C. T. Kaulback, W. C. Fairchild, and Stangroom, and all of them, are material witnesses for plaintiff," and "did swear that they would severally testify on the trial of said cause" as is hereinafter in the column to the left set out. And be it further remembered, that said defendants, in said great suit, did not want it continued, and being anxious to let plaintiff have all the "material witnesses" plaintiff wanted, did procure the said Kaulback, and did, after much "exertion and great expense," procure the testimony of the other witnesses so material for plaintiff. And be it remembered, that said witnesses, after all the trouble defendants had been to accommodate plaintiff and get plaintiff his "material witnesses," did ungratefully refuse to depose and swear to much "testimony" that was material to plaintiff, but did "depose and swear" to the truth as is hereinafter set out in the column to the right.

What Peter said :	What the witness, McGee, said :
"That the said John B. McGee will testify upon the trial of said cause that sometime in April, May or June, 1867, he had a conversation with R. C. Chambers, * * that Chambers laughed and said that they had drawn checks for the amount (of percentage); that any man could draw a check if he had a mind to, and that no money had passed on their organization; that Chambers wanted him to take stock in the Company.	"That the affidavit of P. Vanclief is false in every particular, other than as to witness having a conversation with Chambers; that such conversation was of no such import."

What Peter said :	What the witness, Kaulback, said :
"That the said C. T. Kaulback will testify upon the trial of said cause that he was one of the number of ten who pretended to organize into a corporation under the name of the O. & V. C. R. R. Co.; that he never subscribed to the stock of any contemplated railroad, or to the stock of said Company, or to any other document connected with said pretended Company, other than the pretended articles of association thereof ; that he never participated in the appointment of any person as temporary treasurer of said Company ; that he never received five days' notice or any other notice from any one of any meeting of defendants, or any of them, for the purpose of adopting articles of association or electing directors for said Company, and that he never attended any such meeting for that purpose or any other ; that he did not, at the time of the pretended organization of said Company, or before, pay in any money whatever to any one for the purposes of said Company."	"That he subscribed one hundred dollars to the stock of the O. & V. C. R. R. Co.; that he was one of the ten who organized said Company, and signed the articles of association thereof ; that he participated in the appointment of a temporary treasurer thereof; that he received five days notice from the temporary treasurer, so appointed, of a meeting of the stockholders of said Company for the purpose of adopting articles of association and electing Directors for said Company ; that he was present at said meeting and aided in adopting articles of association and electing Directors, and was present at all the preliminary meetings of said Company, and paid to the temporary treasurer, at the time he was appointed, ten per cent. on the amount of stock subscribed by him."

What Peter said :	What the witness, Fairchild, said :
"That W. C. Fairchild would testify to the same things that Peter said Kaulback would, substituting Fairchild's name for Kaulback's wherever it occurs."	"That he has read the written affidavit for a continuance (Vanclief's), and that it is, so far as it relates to what he (Fairchild) would testify on the trial of said action, false in every particular save in the statement that he (Fairchild) was one of the ten who organized said Company."

What Peter said :	What the witness, Stangroom, says:
"That Stangroom will testify on the trial that the probable cost of a railroad over the route will average at least $50,000 per mile, not including motive power, rolling stock, or other *movable* appurtenances."	"That he has seen and read the affidavit of P. Vanclief, and that so far as it refers to him (Stangroom) the statement of the cost of the road is entirely without foundation.

The publication of your letter to the Attorney General writes you the "gentleman and the scholar." It but needs this affidavit and "appurtenances," added to your repeated declarations, to prove your integrity and exemplify your honor. While you give the former to the world, let a friend do what your modesty forbade you to do, give the latter, and the monument will be complete.

My dear Peter, though you cannot, like Blackstone, Montesquieu and Hamilton, see the "spirit of the law," I trust you may see and appreciate the "spirit of this letter." Like the retired physician, "the sands of your life are fast running out," but there is no pressing necessity that you should embitter your last hours with sad thoughts upon the awful state of the world. You have, by your acts and example, done all in the way of good works that can be required. You have "fought the good fight" and merited, as you have received, the acclaim of "well done good and faithful servant," therefore be quiet and let the "peace of the righteous" spread its mantle over your decaying but graceful form, and as its "spirit" soothes, with kind ministrations, your bodily pain, so will it relieve your mind of the agony it gathers from the sad reflection that all are not as good and virtuous as yourself.

In conclusion, let me express the hope that the Ruler of the Universe may provide for you some quiet work in a heaven adapted to the temper you exhibit in your "manifesto," where, through and beyond all time to come, you may enjoy that transcendental happiness that ever attends the possession of a jealous mind and an envious disposition.

Until that time, I am your obedient servant,

CREED HAYMOND.

P. S.—My dear Peter, treat this as a bit of pleasantry; it may show you how easy it is to make out a case if you take the "letter" instead of the "spirit" of the thing. While yours to the Attorney General was in bad taste, I attribute it not to a bad heart. You were disappointed in what you really thought was a laudable ambition, and in the moment of that disappointment gave vent to feelings that the truer impulses of your heart would condemn. You had, perhaps, too, lost a large fee you had hoped to gain, and, as a member of the profession, I can sympathize with you; but console yourself with the knowledge that you never could have succeeded—you tried to block the Beckwith Pass. He who holds the destinies of the world in his hand had carved it for a purpose; man cannot alter his decrees, and in a short time, as the cars of the Oroville and Virginia City Railroad Company roll up the pass of the Feather, and bear the commerce of the world through the valleys of Plumas, rich with a happy and prosperous people, you will smile at your delusion, and the people, if they ever give a thought to a suit that has engendered much bad feeling on both sides, will wonder at the fact that any one could be found so short sighted as to oppose a railroad. And the county, instead of being "robbed and swindled," will, with its millions of taxable property, the fruit of this improvement, be enabled to add to the comfort and happiness of its people. Rich to-day in its hundreds of thousands of acres of the finest agricultural and timbered lands in the world, the county is poor for want of improvements. To bring its unnumbered resources within reach of a market, and set its seat of justice on the highway of Nations, is the destiny of the Oroville and Virginia City Railroad Company.

What little "Bolinger, Chambers and Haymond" have done for that Company may not have aided it much; what you have done against it has injured it but little—each of us, with our labors, must be satisfied. ITS SUCCESS IS ASSURED and "its work now, thank fortune, beyond the spoiler's reach, will, through all time to come," bear testimony higher and worthier than the mere utterances of human lips as to the "spirit and intention" of those who conceived it.

6 50

REASONS FOR THE DIVISION

OF

MONTEREY COUNTY.

Hollister division committee of Monterey co.

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REASONS

FOR THE

DIVISION OF MONTEREY COUNTY.

To the Citizens of Monterey County residing East of the Gavilan Mountains:

The division of Monterey County is a subject which has agitated the public mind for more than two years last past, and which will continue to do so until the object is finally accomplished, or it is definitely known that the project can not succeed.

We believe the present time the most opportune for success of the movement, if the people residing east of the Gavilan desire it; nor do we believe the people west of the Gavilan intend or desire to oppose division. They have wisely concluded that it is only a question of time; and believing they are able to support a county government without us, are willing to let us go at such time as we desire.

In considering this subject, one of the first questions that presents itself is, What natural ties, if any, bind together the people east and west of the Gavilan?

County governments are established for the convenience and more perfect government of the people within its bounds, and the division lines between counties are generally marked by mountains and streams, or other natural objects, and where possible the county is so bounded as to embrace only a people whose ideas, necessities, pursuits and trades are the same, and where the prosperity of one part will assist the other, and where the social and commercial relations will familiarize the whole people and make them one in sentiment and interest.

Wherever this is not the case, where there are no ties of common interest to bind them together, their different wants and ideas will cause dissatisfaction, and a total want of unity.

Commercially, nature has placed an impassable barrier between them. The Gavilan range of mountains runs from the northern boundary of the county in a southerly direction almost the entire length of the county, and cuts off all social and commercial relations. We of the east side have no trade or business relations with the people of the west side. Our trade of all kinds is with San Francisco direct, through Santa Clara County, all our produce sent there inland, and all our merchandise transported by rail to us in return. We borrow and lend, pay and receive, either among ourselves or in the direction of our trade, business or commerce; and as a necessity our knowledge of the people, our sympathies and ideas are all with and for the people we know, and with whom we trade. The commercial relations of the people west of the mountains are with San Francisco by water, or with their immediate neighbors, the people of Santa Cruz County—there is not a commercial pursuit, enterprise, or business of any note in the county that we are aware of, in which the people of both sides of the Gavilan have a common interest or ownership. The people know each other only through their political relations, which can only be partial and temporary. A people bound together by no stronger ties, will disagree as soon as their local interests dash.

As convenience is one of the first objects in establishing county governments, let us inquire into the convenience of the present county government to the people east of the Gavilan.

The County Seat, the City of Monterey, is located on the extreme western side of the county, from the town of San Juan, the nearest settled place east of the mountains, a distance of 36 miles; from Hollister, 46 miles; from Grogan's Ranch, 56 miles; from San Benito Store, 76 miles; from Pocacho Mines, 118 miles; from Bitter Water and Peach Tree Valleys, 134 miles; and from Cholamo Valley and southern line of county, 150 miles.

The Gavilan Mountains being such a formidable barrier as to prevent travel over a greater part of the same, for conveyances of any kind, except over the grade near San Juan—and passable, except as named, only on foot or horseback for near the entire length of the county, and then only over blind and dangerous trails, and in a few places.

The country along the San Benito and Tres Pinos, in the Bitter Water, Cholamo and other valleys is becoming thickly settled, as well as the full length of the county, and those residents are compelled to traverse the full length of the county to pass the Gavilan, and then the additional distance to reach Monterey. Nor can this inconvenience be remedied. The County seat is not likely to be removed a greater distance nearer us than 18 or 20 miles; this would lessen the distance to that extent, but would not materially lessen the inconvenience or expense. We are informed that there are times during wet winters when the present county seat can not be reached for weeks by those living east of the mountains.

The County of Monterey is too large for the economical administration of a county government. The best and cheapest governed people, as a general rule, are those in small territories. The wants of the people are then known, and can be administered without deception, either of people or authorities.

The County of Monterey embraces 4,500 square miles of territory, with almost every variety of soil, climate and pursuits; fifty miles in width, by nearly a hundred in length—larger than the State of Rhode Island, Delaware or Connecticut, and larger than Rhode Island and Delaware combined, and more than half as large as New Jersey, New Hampshire or Massachusetts. If the County is divided, the new County would embrace about 1,584 square miles, larger itself than Rhode Island, and nearly as large as Delaware. We do not deem it necessary to dwell upon this part of the subject any longer. Those who live east of the mountains, and who have been compelled to go to Monterey, can fully appreciate what has been said.

The next question which presents itself is: Have we population sufficient to organize amd maintain a county government? Our registered vote is as follows: Hollister precinct, 540; San Juan, 260; Tres Pinos, 140; San Benito, about 100; and Peach Tree, 75, making a total of 1,116 votes. There was polled on Sept. 6th., 1871, at the above precincts, a total vote of 778, and it is conceded that the actual is near the registered vote, to wit: Hollister, 400; San Juan, 250; Tres Pinos, 140; San Benito, 95; Peach Tree, 120, making a total vote of 1,005 votes. This is a larger actual vote than in seventeen counties in the State, to wit: Alpine, Colusa, Del Norte, Fresno, Inyo, Kern, Klamath, Lake, Lassen, Merced, Mono, San Bernardino, San Diego, San Luis Obispo, Tehama, Trinity, and Santa Barbara. The whole county, and particularly the east side, is rapidly filling up, the east side having now a population of near 4,500, and within five years, with ordinary prosperity, we can reasonably expect our population to have reached the number of 10,000.

The next, and most material question of all, is: Have we sufficient taxable property to maintain an economical county government? And this opens the inquiry as to how much will be required to carry on an economical county government east of the Gavilan Mountains? Our calculations will be made on the basis of economy, as an extravagant government will not be carried on, unless the people permit it. We claim that a county government can be maintained with less expense in proportion east, than west of the Gavilan. The wants of the people are not so great; their population more compact; the interests of the people are similar; the county seat can be more conveniently located; and above all, the facts are such that if the county officers were inclined to extravagance the people can more readily see and check the same.

How much taxable property is required, and how much have we? We have (according to the estimate of our County Assessor and other county officers) east of the Gavilan, within the boundary of the new county as proposed two years ago,

$1,500,000 of taxable property. The real property being assessed at 40 per cent., and personal property at 50 per cent. of its actual value. That being the rate for Monterey County for 1871 — the farming counties not pretending to assess at a cash value. The total assessment for Monterey County for 1871 being over $4,000,000 of taxable property, assessed at the above rates. This will make for the county, cash value of assessable property for 1871, $9,525,499.75, and the actual cash value of assessable property east of the Gavilan for 1871, $3,219,665.89. Conceding that we have on this side but $1,500,000 of taxable property, or that it should be assessed at the percentum of value as for this year, then at the rate of tax levy of $2.62 on the $100 of value, present year rate, we have $39,300. This being the amount we actually pay to Monterey County in support of the county government from direct property tax. Besides this there is, or should be collected from this side the further sum of about $4,000 as the county part of State poll tax, liquor, merchandise, billiard and other license tax. Then we have this statement of total revenue to carry on our county government, to wit:

$1,500,000 taxable property, at $2.62 — tax	$39,300
License and State Poll Taxes	4,000
Making a total of	$43,300
From this deduct State part of taxes	12,824
This will net to the county	$30,475

and leave that sum with which to pay the expenses of the county government. Can we carry on the county government with that sum, or less? We think with less, as we will attempt to show. First by providing for county officers' salaries and then other expenses. We will allow as follows:

County Judge	salary per anum	$1,200
District Attorney	" "	1,000
County Treasurer	" "	1,000
" Assessor State, $250—County,	" "	800
Superintendent of Schools	" "	300
County Recorder as Auditor	" "	300
" Clerk as Cl'k of B'd Supervisors	" "	250
Amount carried forward		$4,850

Amount brought forward	$4,850
Sheriff's fees from County. per annum	550
Three members of Doard of Supervisors, each $200	600
Total for Salaries	$6,000
Then for School Tax 958 children @ $3	$3,000
Road Tax, $15.00 per capita — property tax	2,000
Then add for all other expenses	10,000
Making a total of	$21,000
Or, if that is not enough for other expenses, add again	9,475
This will equal present amount collected, to wit	$30,475

We see by adding $19,475 for other expenses, we still have sufficient to maintain a good county government, on the same rate as now levied for Monterey County.

The salaries above stated are not too low; that of County Judge is more than is paid in ten, and the same as paid in twelve counties in this State. That of District Attorney, as generally agreed upon throughout the State. Of County Treasurer, more than paid in eight counties, and same as in six. The Assessor's we think a fair compensation for the work to be done on this side, and is more than allowed in a number of counties. The Superintendent of Schools can be allowed to teach, and the salary is full as much as paid in some larger counties. The salary of County Clerk and Auditor is about the same as now paid our present County Clerk. The Sheriff's fees may be too much or too little, depending upon the prosperity of the county, and is intended to cover only for services performed for the county. The Clerk's, Recorder's, and Sheriff's offices depending upon fees from litigants and others, for compensation for services done. The Supervisors should be only three in number, who will be required to sit as a Board about thirty days in the year, at $5 per day each, the allowance being $200 each. These salaries should not be any larger, and competent persons can be obtained to fill them at those figures.

For school purposes, under the law, there must be levied not less than $3 per scholar, and not more than thirty-five cents on the $100 of taxable property. The lowest yielding about $3,000—the highest, $4,250. The $3,000, with what will be received from the State, about $1,800, will pay all our reasonable school expenses.

We have already established all our principal roads, and the sum of $3,500, if expended on the roads we have, will be more than has been expended in any one year on this side in repairing the same, and will greatly benefit the traveling public. We have made no provision for the Hospital Fund, nor should we. If we visit the various hospitals of this State, we will find them poor houses, and the homes of men who *will* not work, and who remain in the hospital because it suits their natures. If any one is really sick and destitute, let his temporary wants be supplied under such proper rules as may be established by the Board of Supervisors, and the expense paid from the General Fund of the County. This method will answer all the wants of the people, and save many dollars. We then have the salaries, the expenses of schools and roads all paid, and $19,475 left. Now, if that is not enough to pay all other ordinary and reasonable expenses of a county east of the Gavilan, then we would like to know what those expenses are.

We also think that a property tax as now levied on the other side upon at least $2,500,000 ought to be enough to carry on their county government without us, unless the people are confirmed in the opinion that a county government cannot be maintained without a property tax levy of $100,000.

To prove, beyond a doubt, that county governments may be, and are carried on in this State with less taxes than $100,000, we submit the following list of counties and their assessments, etc., for 1869, as furnished by the State Controller.

Alpine	rate	325	—value $	331,720	—taxes	$10,822
Amador	"	247	— "	1,952,942	— "	48,214
Del Norte	"	282	— "	486,594	— "	13,705
Calaveras	"	500	— "	1,124,065	— "	56,200
Lassen	"	360	— "	518,555	— "	18,648
Lake	"	375	— "	606,697	— "	22,725
Mariposa	"	300	— "	1,093,102	— "	32,793
Mono	"	300	— "	349,226	— "	10,476
San Mateo	"	240½	— "	1,500,000	— "	36,740
Siskiyou	"	128	— "	1,951,242	— "	24,928
Trinity	"	277	— "	613,986	— "	16,980
Tulare	"	173	— "	2,085,485	— "	35,924

Besides the above we have Humboldt, Inyo, Klamath, Kern, Plumas, San Bernardino, San Diego, Santa Barbara and Tehama, where assessable property does not amount to $1,500,000. The counties of Amador and Calaveras raise more than the others named, as they are paying off road debts. It can be seen that in the twenty-three counties above named it does not require any such sum as $100,000 per year to carry on their county governments, and the assessable property in nearly all is less than will be in ours to begin with. Now, as a close comparison, let us take San Mateo County. Her voting population this year is a little more than our own, her taxable property $1,500,000. Why could we not carry on our government here with the same amount as required there? Her rate of taxation is $2.40½ on the $100 of value, and the amount of taxes raised thereby is $36,740, for both State and County. We pay *now* a larger rate and more taxes, and why would not that rate be an improvement on the present, and why require us to pay more than $2.40½ as in San Mateo? We certainly can carry on a new county with the same taxes, and the people east of the Gavilan are blind to their own interests if they do not see it done.

It may be said that we are not able to *build* county buildings immediately. That question can be readily disposed of. Buildings need not be constructed within two years, or such further time as a majority of the people deem proper. Suitable buildings can be rented at a reasonable rent for two years' time, either at Hollister or San Juan, and a suitable building for jail erected at small cost, which will answer all ordinary purposes. When the people are ready to construct their buildings and have permanently located their County Seat, a contract can be awarded, and a good substantial brick building for Court House and Jail, can be erected for $15,000, which will be an ornament to the county, and answer all purposes as long as the same will stand, and which could be paid for in yearly installments, and not really be felt by the people. This matter being left to the Supervisors, no contract would be awarded until a majority in at least two Supervisor Districts was in favor of it.

The County of Monterey is now out of debt, and we can go without a burden ; but if we remain until a debt is contracted, or if the County Seat should be removed and a contract awarded for new county buildings, we could not then get off without taking our part of the debt, which at least would amount to enough to erect our own county buildings.

It is proper to view this question in another light. We pay to the county treasury our direct taxation, as stated above. How much do we pay to the people west of the Gavilan by way of indirect taxation ? How much does it cost the people east of the mountains yearly to go to Monterey as jurors, witnesses, litigants, to examine records, or to appear before the Supervisors or Board of Equalization ? We think a fair estimate as to the number who are thus compelled to go to Monterey is at least 400 persons. On an average, will they not expend each at least $25 ?—three days being required for a trip from either Hollister or San Juan. At the above estimate it costs the people east of the Gavilan an indirect tax of $10,000 a year in attending to their business, or fulfilling their duties as citizens at the County Seat. This does not include loss of time and business at home, which could nearly all be saved by a County Seat located at the place, or in the direction of our trade and business. It would be better and cheaper for us if our County Seat was at San Francisco than where it is now, or than if located any where west of the Gavilan. How much of all this tax comes back to us again? Our road and school money is about all. The rest is the same as sent out of the county, so far as we are concerned. With a New County, the whole amount of these taxes, except the State's part, would be spent among us, and this $10,000 wholly saved, and would be used by the farmer in repairing fences, houses, or barns, beautifying his home, or supporting his family, and by all in adding to the permanency and welfare of our community. This amount of money also put in circulation will greatly add to the general trade and business, instead of being a steady drain upon us as now. There is another great evil which now and hereafter must bear heavily upon us, so long as our County Seat is located west of the Gavilan. A person wishes to buy land, he sees you, and you agree upon a price. He then inquires as to your title. This you explain as well as you can, but he is not satisfied, if a business man. He must either see the county records himself, or have an abstract from the County Recorder of the same. The purchaser then learns that the County Seat is 50, 60, or 100 miles away; that you can not procure an abstract within five or six days' time, and an expenditure of $50 or $60. This will not suit most business men, and before you can satisfy him, he has left the county, and you have lost your sale. This evil will increase as we are prosperous. Most men in purchasing, desire to examine the records themselves, and without your knowledge. This could not be done at present, without more expenditure than likely to be made.

In conclusion. What are our future prospects for permanency and increase of population and wealth? The Great Valley of the Santa Clara terminates in our county, and extends therein a distance of some thirteen miles, and of an average width of ten miles. And hardly separated from it is the fertile and beautiful San Juan Valley, near twelve miles in length by three in width; also, the Santa Ana and Quin Saba Valleys. We have a large amount of bottom land along the Tres Pinos and San Benito streams, besides numerous large and fertile valleys in the southern part of the county, and almost every foot not suitable for producing grain, can be used as pasture lands, and for that purpose can not be excelled in the State. The following will give some idea of the extent of grain land east of the Gavilan, obtained from our County Assessor:

No. of acres of land patented	297,655
No. of Grants	19
No. of acres first-class Garden Land	24,780
No. of acres first-class Grain Land	34,240
No. of acres second class, part valley land	45,790
Making number of acres	104.810

The above is north of the Tres Pinos stream.

We have along the Tres Pinos and San Benito streams:

Of good grain land, acres		6,750
Dry Lake Valley,	"	1,000
Little Bear Valley,	"	800
Topo Valley,	"	2,000
Bitter Water Valley,	"	3,000
Peach Tree Valley,	"	8,500
Indian Valley,	"	3,500
Cholamo Valley,	"	9,600
Total grain land, acres		139,960

Besides the above we have a large number of small valleys not counted, and in fact, when our seasons are wet, any and all our lands, capable of being plowed, will produce excellent crops of grain, and we challenge the State, with good seasons, to produce more or better quality of grain to the acre than the valleys and bottom lands of our proposed new county. Nor is our soil and climate adapted to producing grain alone; fruit and vegetables of all kinds produced generally in California are raised here in great abundance. The mountain part of the county is admirably adapted to dairy and stock raising, and is now and will hereafter be filled to its full capacity. Our soil is rich and new, our climate is healthful, and there is nothing to prevent our becoming a prosperous community.

Our mineral resources are yet undeveloped, but we are credibly informed that there are a number of mines of cinnabar in our county that bid fair to equal the New Idria mines, also that the coal prospect is very good. Another great element of wealth and industry, the Southern Pacific Railroad, is being constructed through the length of our county, and has now reached a distance therein of fifteen miles, running through the town of Hollister. The road must be extended to the San Joaquin Valley by either the Tres Pinos or San Benito routes. If by the first, there will be in our county about fifty-five miles of road ; by the second, about eighty miles. Besides opening up the county, adding to its wealth, business and population indirectly, it will add directly to our assessment rolls by the first named route at least $350,000, and by the second at least $500,000 of taxable property.

The assessable property for Monterey County in 1861 was $1,158,537 ; for 1871, it is $4,112,280 ; and this year assessed at much less than its actual cash value ; and with reason we can claim that our increase will be in greater proportion at the end of the next ten years, than during the last ten.

Believing the statements above to be true, and that it is for the best interests of the people of Monterey County, east of the Gavilan Mountains, to be separated from the remainder of the County, we submit the same for your consideration and action.

T. S. HAWKINS,
N. C. BRIGGS,
T. L. BALDWIN,
D. E. GILBERT,
R. M. BUTTS,
P. CULLEN,
S. WOOLERY,
J. I. HODGES,
J. G. HAMILTON,
T. MATONEY,
Hollister Division Committee.

HOLLISTER, October 10th, 1871.

AN ESSAY

ON THE

MANUFACTURING INTERESTS

OF CALIFORNIA,

The Causes that impede and those that would aid

THEIR DEVELOPMENT.

BY WILLIAM GOUVERNEUR MORRIS, U. S. MARSHAL, AND H. C. BENNETT.

Published by Permission of the Mechanics' Institute of San Francisco.

SAN FRANCISCO:
Cosmopolitan Printing Company, 505 Clay Street, cor. Sansome.
1872.

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4. Their Present Condition.
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THE PROGRESS OF MANUFACTURES IN CALIFORNIA.

Prior to 1860, the manufacturing interests of this State were of the most insignificant proportions. Almost every article used was imported from the Atlantic States or Europe. The evil effects of such a policy about that time began to attract the attention of a few far-seeing mechanics, through whose influence the Legislature, in 1863, were induced to offer premiums, amounting to several thousand dollars, to encourage the manufacture of Paper, Glass, Boots and Shoes, Woolen Goods and several other articles. The cry of "patronize home manufactures" became very popular; but home manufactures could not thrive on their popularity, and they have never taken a hearty hold of the soil.

As a proof of the progress they made from 1863 to 1865, attention is called to the returns of the Internal Revenue for 1865, in San Francisco District, which at that time contained nearly all the manufactures in the State. This revenue, collected from every class of manufactures and ranging from 2 to 5 per cent. on the value of their products, amounted to only $276,381 for the entire year.

THE PRESENT CONDITION OF THE MANUFACTURING INTERESTS.

The following table, compiled from the returns of the United States Census for 1870, and from other reliable sources, exhibits the number of "establishments of productive industry," in each county, the number and classes of persons employed therein, the capital invested, wages paid for labor, cost of materials and value of products:

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD–

COUNTIES.	Number of Establishments	HANDS EMPLOYED			Capital Invested	Wages Paid	Cost of Materials	Value of Products
		Men	Women	Boys				
Alameda	150	714	16	14	$ 775,350	$ 355,390	$ 577,916	$ 1,438,414
Alpine	13	21	2	3	74,575	9,935	6,393	36,752
Amador	201	1,154	......	2	1,976,205	591,945	420,738	1,862,957
Butte	95	653	......	2	984,200	375,180	608,187	1,319,552
Calaveras	615	1,614	......	3	1,025,950	670,302	366,313	1,775,256
Colusa	28	57	......	2	53,200	38,024	117,389	179,294
Contra Costa	48	429	......	3	3,554,240	436,497	99,127	978,735
Del Norte	54	157	......	....	167,000	59,215	64,200	262,800
El Dorado	156	613	2	1	299,059	168,730	255,974	654,681
Fresno	19	390	1	1	429,450	298,300	19,590	471,800
Humboldt	47	354	4	13	666,150	178,425	460,365	929,278
Inyo	43	186	......	1	335,820	100,775	194,440	583,465
Kern	31	172	......	1	250,500	50,550	38,159	133,683
Klamath	22	196	......	2	140,300	107,950	38,709	288,819
Lake	29	278	......	5	578,255	144,335	24,100	245,440
Lassen	16	21	......	1	23,100	3,725	25,100	45,850
Los Angeles	99	654	......	5	685,640	211,782	337,029	781,646
Marin	41	477	......	3	242,300	95,200	151,698	366,546
Mariposa	44	422	......	4	1,865,860	284,865	301,539	843,890
Mendocino	118	1,191	2	....	1,240,630	494,162	458,012	1,345,100
Merced	15	24	1	2	51,850	9,500	34,678	61,830
Mono	15	45	......	1	36,850	17,050	44,248	145,560
Monterey	52	156	......	7	165,300	39,305	162,704	332,312
Napa	43	99	......	2	393,250	155,890	166,263	394,600
Nevada	219	1,631	3	6	2,795,815	863,822	842,984	3,056,991
Placer	148	923	.....	5	823,895	470,130	347,892	1,165,271
Plumas	116	601	......	1	591,775	289,855	109,452	603,182
Sacramento	177	1,444	14	46	1,750,854	1,069,029	1,612,692	3,640,406
San Bernardino	29	119	1	4	102,775	36,700	92,148	201,010
San Diego	25	62	2	3	96,900	18,150	95,680	140,875
San Francisco	1,792	13,630	1,036	580	25,654,767	8,118,057	23,153,277	49,621,348
San Joaquin	157	482	2	12	670,975	365,629	905,909	1,617,918
San Luis Obispo	20	48	......	2	58,550	40,280	37,430	108,564
San Mateo	84	350	2	2	315,790	131,523	183,971	472,633
Santa Barbara	41	166	37	5	340,300	40,860	52,538	158,422
Santa Clara	172	1,103	6	41	15,469,550	707,410	1,220,748	2,270,020
Santa Cruz	142	1,101	3	4	2,242,475	474,460	843,389	1,956,994
Shasta	68	207	......	2	194,675	72,798	76,515	238,186
Sierra	110	1,006	......	4	798,785	594,906	608,658	1,320,751
Siskiyou	104	284	......	3	274,600	67,769	147,719	403,006
Solano	179	337	13	4	534,000	125,575	414,430	822,342
Sonoma	236	935	41	3	839,180	367,482	668,755	1,453,718
Stanislaus	30	54	......	1	222,050	23,200	146,990	234,559
Sutter	24	32	......	2	30,400	9,000	10,360	34,500
Tehama	44	145	52	2	174,620	109,550	566,080	752,080
Trinity	67	215	.....	2	217,200	79,230	68,886	244,900
Tulare	25	69	......	3	68,950	21,100	75,296	157,700
Tuolumne	302	678	2	1	891,670	315,675	231,215	703,950
Yolo	102	290	7	6	251,425	125,957	340,908	683,306
Yuba	108	637	4	8	1,520,300	427,334	750,144	1,736,048
Totals	6,515	36,626	1,253	830	$76,947,310	$19,874,513	$38,597,037	$89,276,949

No. I.—(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Agricultural Implement Makers	Animal Charcoal Burners	Asphaltum Miners	Assayers	Axle Grease Makers	Bag Weavers	Bagging Weavers	Bakers	Bark Cutters	Basket Makers	Bell Founders	Bellows Makers	Billiard-ball Makers	Billiard-table Makers	Blacksmiths	Boat Builders	Boiler Makers	Book Binders	Boot and Shoemakers	Borax Maker
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....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	....	....	....	6	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	....	....	....	9	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....	2	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	....
....	....	....	....	....	....	....	1	....	....	....	....	....	....	9	....	....	....	3	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	....	....	....	8	....
....	....	....	....	....	....	....	5	....	....	....	....	....	....	12	....	....	....	16	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	....	....	....	17	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....	3	....
....	....	....	....	....	2	....	2	....	....	....	....	....	1	28	....	1	2	18	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....	3	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....	4	....
....	1	....	2	1	4	....	39	....	2	1	1	1	5	28	6	3	7	164	....
2	....	....	....	....	....	....	....	....	....	....	....	....	....	50	....	1	....	15	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	5	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	....	....	....	11	....
....	....	1	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....	4	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	21	....	....	....	23	....
....	....	....	....	....	....	....	....	4	....	....	....	....	....	4	....	....	....	4	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	....	....	....	4	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....	9	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	....	....	....	7	....
....	....	....	....	....	....	....	4	....	....	....	....	....	....	16	....	....	....	11	....
1	....	....	....	....	....	....	1	....	....	....	....	....	....	29	....	....	....	19	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	....	....	....	5	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....	8	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	....	....	....	6	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	....	....	....	3	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	5	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	....	....	....	12	....
....	....	....	....	....	....	....	1	....	....	....	....	....	....	35	....	....	....	11	....
....	....	....	....	....	1	....	3	....	....	....	....	....	....	22	....	....	....	15	....
4	1	1	2	2	7	1	64	4	2	1	1	1	6	561	6	5	9	463	1

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD-

COUNTIES.	Box Makers	Brass Founders	Brewers	Broom Makers	Brick Makers	Brush Makers	Builders	Cabinet Makers	Candle Makers	Candy Makers	Cap Makers	Carpenters	Carriage Makers	Carriage Painters	Carriage Trimmers
Alameda	....	....	....	1	....	....	1	2	....	....	....	22	....	1	....
Alpine	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Amador	....	....	3	1	....	....	....	....	....	....	....	4	....	....	....
Butte	1	....	2	....	....	....	....	....	....	....	....	6	....	....	....
Calaveras	....	....	6	....	....	....	....	....	....	....	....	38	....	....	....
Colusa	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Contra Costa	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Del Norte	....	....	1	....	....	....	....	1	....	....	....	6	....	....	....
El Dorado	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Fresno	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....
Humboldt	....	....	....	....	1	....	....	....	....	....	....	6	....	....	....
Inyo	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....
Kern	....	....	....	....	....	....	....	....	....	....	....	7	....	....	....
Klamath	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....
Lake	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Lassen	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....
Los Angeles	....	....	2	....	2	....	....	....	....	....	....	9	2	....	....
Marin	....	....	....	....	11	....	....	....	....	....	....	5	....	....	....
Mariposa	....	....	2	....	....	....	....	....	....	....	....	7	....	....	....
Mendocino	....	....	4	....	1	....	....	1	....	....	....	10	....	....	....
Merced	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....
Mono	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Monterey	....	....	1	....	....	....	....	....	....	....	....	9	....	....	....
Napa	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....
Nevada	....	....	12	....	2	....	....	1	....	1	....	12	....	....	....
Placer	....	....	4	....	....	....	....	2	....	....	....	12	....	....	1
Plumas	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Sacramento	....	1	5	1	5	....	....	6	....	4	....	20	4	....	....
San Bernardino	....	....	1	....	....	....	....	....	....	....	....	4	2	....	....
San Diego	....	....	1	....	....	....	....	....	....	....	....	3	....	....	....
San Francisco	6	5	23	5	2	2	7	12	2	11	3	45	13	3	2
San Joaquin	....	....	3	1	....	....	....	2	....	....	....	23	....	....	....
San Luis Obispo	....	....	1	....	....	....	....	....	....	....	....	3	....	....	....
San Mateo	....	....	1	....	....	....	....	1	....	....	....	18	....	....	....
Santa Barbara	....	....	2	....	....	....	....	3	....	....	....	4	....	....	....
Santa Clara	1	....	....	1	3	....	....	....	....	1	....	10	....	....	....
Santa Cruz	....	....	3	....	....	....	....	....	....	....	....	9	....	....	....
Shasta	....	....	1	....	....	....	....	....	....	....	....	3	....	....	....
Sierra	....	....	....	....	....	....	....	....	....	....	....	7	....	....	....
Siskiyou	....	....	2	....	....	....	....	....	....	....	....	6	....	....	....
Solano	....	....	3	....	....	....	2	....	....	....	....	7	....	....	....
Sonoma	....	....	2	....	1	....	....	2	....	1	....	43	....	....	....
Stanislaus	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....
Sutter	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....
Tehama	....	....	....	....	....	....	....	....	....	....	....	12	....	....	....
Trinity	....	....	1	....	....	....	....	....	....	....	....	2	....	....	....
Tulare	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....
Tuolumne	....	....	....	....	....	....	....	....	....	....	....	7	....	....	....
Yolo	....	....	....	2	3	....	....	3	....	....	....	7	....	....	....
Yuba	....	....	....	1	2	....	2	3	....	....	....	12	....	....	....
Totals	8	6	86	13	33	2	12	39	2	18	3	463	21	4	3

No. I.—(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Carvers	Calkers	Cement Pipe Makers	Chair Maker	Champagne Maker	Charcoal Burner	Chemical Works	Chickory Maker	Chocolate Makers	Chlorination Works	Cigar Makers	Cigar-box Makers	Chrome Mines	Cloak Makers	Coal Miners	Coffee Grinders	Coopers	Copper Concentrators	Copper Mines	Coppersmiths
									1								2		
																1			
									1									1	
														5					
												1							
																1			
																1			
					1				1										
										6									
2	6	3		1		4		2		78	2		15		9	28			5
										1									
										2					1	2			
																2			
			1													5			
							1												
										2									
2	6	3	1	1	1	4	1	2	3	89	2	1	15	5	10	40	2	1	5

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD–

COUNTIES.	Cordage Makers	Cordial Makers	Corkscrew Maker	Cracker Bakers	Cutlers	Dentists	Distillers	Dress Makers	Electro-platers	Electrotypers	Engravers	Feather Dresser	Firework Makers	Feed Mill	File Cutters
Alameda	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Alpine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Amador	....	....	....	....	....	....	5	....	....	....	....	....	....	....	....
Butte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calaveras	....	....	....	....	....	2	7	....	....	....	....	....	....	....	....
Colusa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Contra Costa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Del Norte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fresno	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Inyo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kern	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Klamath	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lassen	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Los Angeles	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....
Marin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mariposa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mendocino	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Merced	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mono	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Monterey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napa	....	....	....	....	....	....	3	....	....	....	....	....	....	....	....
Nevada	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....
Placer	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Plumas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento	....	....	....	....	2	....	....	....	....	....	1	....	....	....	....
San Bernardino	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Diego	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Francisco	2	4	1	4	4	15	4	81	6	3	2	1	2	1	3
San Joaquin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Luis Obispo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Mateo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Barbara	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Clara	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....
Santa Cruz	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shasta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sierra	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Siskiyou	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Solano	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
Sonoma	....	....	....	....	....	2	2	....	....	....	....	....	....	....	....
Stanislaus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sutter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tehama	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Trinity	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tulare	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuolumne	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yolo	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....
Yuba	....	....	....	....	....	1	2	....	....	....	....	....	....	....	....
Totals	2	5	1	5	7	24	25	83	6	3	3	1	2	1	3

NO. I.—(CONTINUED.)

ING TO THE FEDERAL CENSUS OF 1870.

Fish Curers	Fishermen	Flavoring Extract Maker	Flour Mills	Flower (artificial) Maker	Fruit Preservers	Furriers	Gas Works	Gas Meter Maker	Giant Powder Makers	Ginger Beer Makers	Gilder	Glass Cutters	Glass Makers	Glass Painter	Glove Makers	Gold Cleaners	Gold Beaters	Gold Mining Companies	Gold Pen Maker
			5		1		1												
			2															113	
			4															22	
																		418	
			2																
			4																
	2		2															16	
			1															101	
			1																
3			2																
			1															11	
			2															3	
			1															4	
			2																
			1																
			5				1											1	
										1									
																		5	
			6																
			2																
			1															5	
			3																
			5																
			1				1											79	
																		101	
			1															79	
			3				1								1				
			1															1	
3	255	1	8	1	2	4	1	1	2	1	1	2	2	1	2	3	2		1
			5				1												
			2																
			2																
			2																
			8				1												
			6				1												
	1		2															28	
																		50	
			8															48	
	66		1												1				
			12												1				
			3																
			3												2				
			1															37	
			3															1	
			3															139	
1			4																
			5				1											35	
7	324	1	136	1	3	4	10	1	2	2	1	2	2	1	7	3	2	1297	1

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD-

COUNTIES.	Glue Makers	Granite Quarriers	Gunsmiths	Harness Makers	Hatters	Hat Block Maker	Hoop Skirt Makers	Hydraulic Cement Maker	Hydraulic Hose Maker	Hydraulic Nozzle Maker	Hydraulic Pipe Maker	Ice Maker	India Rubber Stamp Makers	Indian Root Bitters Maker	Ink
Alameda				10											
Alpine															
Amador				3											
Butte				3											
Calaveras				1							1				
Colusa				1											
Contra Costa				8											
Del Norte															
El Dorado				1											
Fresno															
Humboldt				3											
Inyo															
Kern															
Klamath															
Lake				1											
Lassen															
Los Angeles				7											
Marin				2											
Mariposa				1											
Mendocino				6											
Merced				1											
Mono															
Monterey			1	3											
Napa				3											
Nevada			1	4					1	1			1		
Placer		3		2									1		
Plumas															
Sacramento		1		9											
San Bernardino				2											
San Diego				1											
San Francisco	2		5	33	12	1	3					1		1	1
San Joaquin				13											
San Luis Obispo				1											
San Mateo				6											
Santa Barbara				3											
Santa Clara			4	11											
Santa Cruz	1		1	5											
Shasta				3											
Sierra															
Siskiyou				1				1							
Solano				7					1						
Sonoma				11											
Stanislaus				2											
Sutter				3											
Tehama				6											
Trinity			1												
Tulare				1											
Tuolumne				3											
Yolo				9											
Yuba				9											
Totals	3	4	13	199	12	1	3	1	1	1	1	1	2	1	1

No. I.—(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Iron Bedstead Makers	Iron Doors and Shutters Makers	Ivory Turners	Jewelers	Jewel-box Makers	Ladies' Boot Makers	Ladies' Underclothing Makers	Last Maker	Lead Pipe and Shot Maker	Lead Smelters	Leather Hose and Belt Makers	Lime Burners	Linseed Oil Maker	Lithographers	Locksmiths	Lumberers	Lubricating Oil Maker	Maccaroni Makers	Machine-shops and Foundries	Maltsters
			1															3	
																		1	
																		1	
			1											1				1	
			1																
																		1	
															3			1	
											3							2	
																		1	
									4										
																		1	
			1												33				
			1																
			1								1							3	
	1		3															3	
1	1	1	24	3	2	3	1	1	1	2	....	1	4	6	....	1	3	31	3
	1																	2	
											1								
			2															3	
											4				41			1	
			1											1					
			1															1	
																		2	
			2															1	
			1															1	
			2																
1	3	1	42	3	2	3	1	1	5	2	9	1	4	8	77	1	3	61	3

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD-

COUNTIES.	Marble Sawing Mill	Marble Workers	Mathematical Instr'ment Makers	Match Makers	Mattrass Makers	Meerschaum Pipe Maker	Metallurgical Works	Milliners	Millwrights	Musical Instrument Makers	Mustard Maker	Necktie Makers	Oil Clothing Makers	Oil Refiners	Pail and Tub Makers
Alameda	....	5	....	....	....	....	....	2	....	....	....	....	....	....	....
Alpine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Amador	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Butte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calaveras	....	1	....	....	....	....	....	....	5	....	....	....	....	....	....
Colusa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Contra Costa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Del Norte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fresno	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Inyo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kern	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Klamath	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lassen	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Los Angeles	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Marin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mariposa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mendocino	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....
Merced	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mono	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Monterey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nevada	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
Placer	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Plumas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento	....	1	....	1	1	....	....	....	....	....	....	....	....	....	1
San Bernardino	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Diego	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Francisco	....	21	2	4	5	1	3	22	....	2	1	2	3	2	1
San Joaquin	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
San Luis Obispo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Mateo	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Santa Barbara	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Clara	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Cruz	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Shasta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sierra	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Siskiyou	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Solano	....	1	....	....	2	....	....	1	....	....	....	....	....	....	....
Sonoma	....	....	....	....	....	....	....	3	....	....	....	....	....	....	....
Stanislaus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sutter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tehama	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Trinity	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tulare	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuolumne	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....
Yolo	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
Yuba	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	1	34	2	6	9	1	3	34	6	2	1	2	3	2	3

No. I —(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Painters	Paper Makers	Paper Box Makers	Paper Collar Maker	Patent Medicine Makers	Pattern Makers	Perfumery Maker	Petroleum Miners	Photographers	Pianoforte Makers	Pickle Makers	Picture Frame Makers	Planing Mills	Plaster of Paris Maker	Plaster Ornament Maker	Plumbers and Gasfitters	Pork Packers	Potters	Powder Worker	Printers
6												1			3				6
																			2
																			2
								1				2							2
								1											1
																			1
																			2
1								1											
																			1
																			1
																			2
																			1
																			1
																			1
																			2
																			1
												1							3
	1																		2
																			2
								1											2
																			1
																1	1		6
								1											2
2											1					1			3
																1			2
																			1
4				1				1		1		1			4		1		8
																			2
												1							2
27		4	1	3	9	1		14	2	4	7	4	1	2	22	8			72
																			4
																			2
3												1							1
							3												2
1								2				2					1		8
2	1											4						1	3
																			1
												1							2
																			2
3								2				1							4
6								1							1		2		5
																			1
																			1
																			2
																			1
																			2
								2		1									1
1								2				1							2
																			2
56	2	4	1	4	9	1	3	29	2	6	8	20	1	2	30	11	5	1	180

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD-

COUNTIES.	Printers' Roller Maker	Pump Makers	Quicksilver Miners	Rag Carpet Maker	Rectifiers of Spirits	Refiner of Bullion	Regalia Makers	Riggers	Rolling Mill	Rudder Maker	Saddletree Makers	Safe Makers	Safety Fuse Makers	Sail Makers	Salt Makers
Alameda	....	....	....	....	....	....	....	....	....	....	....	....	1	....	7
Alpine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Amador	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Butte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calaveras	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Colusa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Contra Costa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Del Norte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fresno	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Inyo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kern	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Klamath	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lake	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....
Lassen	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Los Angeles	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1
Marin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mariposa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mendocino	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Merced	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mono	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Monterey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Napa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Placer	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Plumas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacramento	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
San Bernardino	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....
San Diego	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Francisco	1	4	....	1	4	1	3	5	1	1	....	3	....	15	....
San Joaquin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Luis Obispo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
San Mateo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Barbara	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Santa Clara	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....
Santa Cruz	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shasta	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Sierra	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Siskiyou	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Solano	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sonoma	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Stanislaus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sutter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tehama	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Trinity	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tulare	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuolumne	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yolo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yuba	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....
Totals	1	5	4	1	5	1	3	5	1	1	4	3	2	15	8

No. I —(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Salt Refiners	Saw Maker	Saw Mills	Sash, Door and Blind Makers	Screen Maker	Screw and Bolt Makers	Seal Cutters	Sea Otter Hunter	Sealing Wax Maker	Shingle Mills	Shingle Splitters	Shipwrights	Shirt Makers	Shoebinders	Ship Block Makers	Shrimp Catchers	Slipper Makers	Soap Makers	Soap-root Curlers	Silver Mining Companies
....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	3	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1
....	....	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	16	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
....	....	7	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	....	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	13	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
....	....	5	....	....	....	....	....	....	2	....	5	....	....	....	....	....	....	....	....
....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8
....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	2	....	....	....	....	....	....	....	15	....	....	....	....	....	....	1	....	....
....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	11	....	....	....	....
....	....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	16	....	....	....	....	....	....	....	....	7	....	....	....	....	....	....	....	....
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....	....	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	20	2	....	....	....	....	....	....	2	....	....	....	....	....	....	1	....	....
....	....	24	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
....	....	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	4	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4	1	4	6	1	1	3	....	1	....	....	9	12	2	3	....	15	13	2	....
....	....	....	2	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....
....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	12	....	....	....	....	....	....	4	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....
....	....	2	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
....	....	21	....	....	....	....	....	....	3	....	....	....	....	....	....	....	1	....	....
....	....	11	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	33	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	11	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	17	2	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	....	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	....	14	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
4	1	336	22	1	1	3	1	1	16	19	23	12	2	3	11	15	19	3	9

TABLE

MANUFACTURES IN CALIFORNIA, ACCORD–

COUNTIES.	Soda Water Makers	Slate Quarries	Shop Clothing Makers	Soda (carbonate) Maker	Sorghum Syrup Maker	Spiral Spring Maker	Stone Cutters	Stone Quarriers	Starch Maker	Stair Builders	Straw Hat Makers	Stone (artificial) Maker	Stencil Plate Cutters	Sulphuret Roasters	Sugar Refiners
Alameda								2							
Alpine															
Amador															
Butte															
Calaveras	1	1					3								
Colusa															
Contra Costa															
Del Norte															
El Dorado															
Fresno															
Humboldt															
Inyo															
Kern															
Klamath															
Lake															
Lassen															
Los Angeles															
Marin															
Mariposa															
Mendocino															
Merced															
Mono															
Monterey					1										
Napa															
Nevada	2													3	
Placer															
Plumas															
Sacramento	1														
San Bernardino															
San Diego															
San Francisco	7		3	1		1	4		1	8	2	1	4		2
San Joaquin															
San Luis Obispo															
San Mateo															
Santa Barbara															
Santa Clara															
Santa Cruz															
Shasta															
Sierra															
Siskiyou															
Solano	2														
Sonoma	1														
Stanislaus															
Sutter															
Tehama															
Trinity															
Tulare															
Tuolumne															
Yolo															
Yuba	1														
Totals	15	1	3	1	1	1	7	2	1	8	2	4	1	3	2

No. I.—(Continued.)

ING TO THE FEDERAL CENSUS OF 1870.

Tallow Melter	Tailors	Tanners	Telegraph Instrument Maker	Tinsmiths	Tobacco Cutters	Tobacco Maker	Tool Makers	Trunk Makers	Truss Makers	Turners	Type Founders	Undertakers	Umbrella Makers	Upholsterers	Vinegar Makers	Wadding Maker	Washing Machine Makers	Washing Powder Maker	Watch Makers
....	1	....	....	11	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	3	1	....	6	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....
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....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	9	....	....	5	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
....	....	....	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1	48	17	1	28	1	....	5	13	3	4	3	11	3	4	2	1	1	1	9
....	2	1	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	1	1	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	9	4	....	5	....	1	....	....	....	....	....	2	....	1	....	....	....	....	....
....	....	5	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	5	3	....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	5	4	....	7	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
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1	99	45	1	135	2	1	5	13	3	5	3	19	3	6	2	1	2	1	9

TABLE NO. 1.—(Concluded.)

MANUFACTURES IN CALIFORNIA, ACCORDING TO CENSUS OF 1870.

COUNTIES.	Whale Fishers	Wharf Builders	Wheelwrights	Wig Makers	Window Shade Maker	Wine Makers	Wire Workers	Windmill Makers	Wood Pavement Companies	Woodenware Makers	Wool Graders	Woolen Mills	Wool Puller	Wagon Makers	Yeast Powder Maker	Zinc Plate Cutter
Alameda														8		
Alpine																
Amador						10								6		
Butte														1		
Calaveras			2			58								8		
Colusa			2							1				2		
Contra Costa														1		
Del Norte			1											1		
El Dorado			1											2		
Fresno														2		
Humboldt			1											2		
Inyo			1													
Kern																
Klamath														1		
Lake														4		
Lassen			2			43								1		
Los Angeles																
Marin																
Mariposa			1											2		
Mendocino			1											1		
Merced												1				
Mono																
Monterey	2					1								5		
Napa														3		
Nevada			6											2		
Placer														2		
Plumas														1		
Sacramento				1								1		5		
San Bernardino																
San Diego	2															
San Francisco		2	2	9	1		3	3	2	2	2	2	1	24	1	1
San Joaquin														21		
San Luis Obispo																
San Mateo	1													3		
Santa Barbara	1					6								1		
Santa Clara												1		26		
Santa Cruz														7		
Shasta														2		
Sierra																
Siskiyou														1		
Solano			1			8								4		
Sonoma														23		
Stanislaus														3		
Sutter														3		
Tehama																
Trinity																
Tulare														1		
Tuolumne														3		
Yolo														2		
Yuba												1		7		
Totals	6	2	21	10	1	126	3	3	2	3	2	6	1	193	1	1

A careful examination of the foregoing table will explain the present condition of the manufacturing interests of the State better than they could be explained by an entire volume written for that purpose.

The fifty counties into which the State is divided are arranged alphabetically in the first column on the left. The number of Industrial Establishments in each is stated in the second column. The number of men, women and boys employed in these establishments in each county are shown in columns 3, 4 and 5. Columns 6, 7, 8 and 9 present the capital invested, wages paid for labor, cost of materials and value of the products of these establishments. The other columns contain a list, alphabetically arranged, of all the industries carried on in the State, except such as pertain to agriculture.

In order to find how many establishments of any particular manufacture there are in the State, find its name in the upper column; at the foot will be found the whole number, and in the intermediate lines the counties in which they are carried on.

From this list it will be seen that there are several industries peculiar to this State, which, under a more liberal policy than at present controls our affairs, might assume a much greater importance than they now possess. Among these undeveloped resources are Asphaltum mining, Petroleum collecting, making Borax and Sulphur, mining chromic and other ores of iron, and curling Soap-root as a substitute for horse-hair. The latter is quite a new industry, and employs a capital of nearly $50,000, 60 men and machinery of 40-horse power. The value of the product is nearly $100,000 annually, and is steadily increasing, because this material is the best substitute for hair ever discovered, and grows in unlimited quantities in all the foot-hill districts in the State.

The number of industrial establishments in the State in 1870, according to the above table, was 6,515; but of these fully three-fourths are Boot and Shoemakers, Tailors, Blacksmiths, Bakers, Carpenters and other branches of industry usually represented in every town and village in a civilized country, which, though exceedingly important to every community, are not such establishments as are required to develop the manufacturing interests of the State or to afford full employment to its labor and capital.

Deducting from the list the local artisans' shops, mining companies, fishermen and small establishments, the manufactures in the State may be summed up as follows:

LIST OF MANUFACTURES IN THE STATE.

4 Agricultural Implement Makers.
1 Bagging Weaving Mill.
6 Billiard Table Makers.
5 Boiler Makers.
8 Boot and Shoe Factories.
8 Box Makers.
13 Corn Broom Makers.
33 Brick Makers.
2 Brush Makers.
2 Candle Makers.
21 Carriage and Wagon Makers.
3 Cement Pipe Makers.
4 Chemical Works.
75 Cigar Makers.
2 Cordage Makers.
1 File Cutter.
150 Flour Mills.
2 Glass Works.
2 Gold Beaters.
6 Harness Factories.
12 Hatters.
1 Hydraulic Cement Maker.
6 Jewelers and Silver Plate Makers.
1 Lead Pipe and Shot Factory.
3 Smelting Works.
1 Linseed Oil Works.
60 Mach'e Shops and Iron Found'rs.
2 Metallurgical Works.
3 Pail and Tub Factories.
2 Paper Mills.
1 Piano Forte Maker.
20 Planing Mills.
1 Powder Works.
1 Rolling Mill.
10 Salt Makers.
1 Saw Maker.
22 Sash, Door and Blind Makers.
16 Shingle Mills.
300 Saw Mills.
10 Ship Builders.
10 Soap Makers.
3 Soap Root Curlers.
1 Starch Maker.
8 Straw Hat Makers.
1 Stone (artificial for building) Mk'r
2 Sugar Refineries.
40 Tanneries.
50 Tinsmiths.
6 Trunk Makers.
3 Type Foundries.
3 Wire Workers.
6 Woolen Mills.

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The number of persons employed in manufactures, according to the Federal Census returns, is 36,626 men, 1,253 women and 850 boys. These figures, if subjected to similar analysis, show that less than 5,000 men, not more than 300 women and only about 400 boys are employed in manufacturing in the whole State. Of the boys employed, 90 per cent. are engaged in the printing business.

The capital invested in manufactures, according to the Census, amounted to $76,947,310. If from this amount be taken the capital invested in mining enterprises and other branches of industry not properly classed as manufactures, the amount actually employed does not exceed $20,000,000. Estimating the capital employed in each of the above 954 establishments at $20,000, which is far above the actual figures, the amount would not reach $20,000,000.

These very suggestive statements are explained and corroborated by comparing them with the list of Imports and Exports for the same year.

The following table (No. 2), showing the population of each county, will be useful in connection with Table No. 1, as exhibiting how large a portion of the State is destitute of manufactures. This table was compiled from the Census returns on file in the U. S. Marshal's Office in San Francisco.

TABLE NO. 2.

THE POPULATION OF CALIFORNIA, ACCORDING TO THE CENSUS FOR 1870.

COUNTIES.	INHABITANTS.	COUNTIES.	INHABITANTS.
Alameda	24,237	Placer	11,357
Alpine	685	Plumas	4,489
Amador	9,582	Sacramento	26,830
Butte	11,403	San Bernardino	3,988
Calaveras	8,895	San Diego	4,951
Colusa	6,165	San Francisco	149,473
Contra Costa	8,461	San Joaquin	21,050
Del Norte	2,022	San Luis Obispo	4.772
El Dorado	10,309	San Mateo	6.635
Fresno	6,336	Santa Barbara	7,784
Humboldt	6,140	Santa Clara	26,246
Inyo	1,956	Santa Cruz	8,743
Kern	2,925	Sierra	4,173
Klamath	1,674	Shasta	5,619
Lake	2,969	Siskiyou	6,848
Lassen	1,327	Solano	16,871
Los Angeles	15,309	Sonoma	19,819
Marin	6,903	Stanislaus	6,499
Mariposa	4,572	Sutter	5,030
Mendocino	7,545	Tehama	3,587
Merced	2,807	Trinity	3,213
Mono	430	Tulare	4,521
Monterey	9,876	Tuolumne	8,150
Napa	7,163	Yolo	9,899
Nevada	19,134	Yuba	10,851
Total			560,223

TABLE NO. 3.

IMPORTS OF MANUFACTURED GOODS BY SEA IN 1870.

QUANTITIES.	ARTICLES.	VALUE.
36,029 cases	Boots and Shoes	$ 1,375,000
1,840	Doors (wood)	5,500
1,846 bundles	Window Sashes	17,000
179,590 boxes	Candles	540,000
14,337 packages	Cordage	720,000
19,053 packages	Furniture	750,000
22,771 packages	Malt Liquors	550,000
1,601 packages	Matches	19,000
64,146 packages	Dry Goods and Clothing	16,036.500
3,199 packages	Paper	100,000
12,962 bbls	Plaster	50,000
24,477 kgs and cs	Powder	75,000
5,721 packages	Hams, Bacon and Meats	170,000
7,514 packages	Butter	125,000
1,974 packages	Cheese	31,500
17,504 tons	Salt	520,000
62,319 boxes	Soap	85,000
30,000 packages	Spirits	1,100,000
49,597 packages	Starch	90,000
106,388 packages	Wine	3,250,000
8,000,000	Grain and other Bags	900,000
Total in above list		$26,504,500

The articles in the above list are separated from the general importations, for the purpose of reference, in another portion of this Essay, to illustrate the consequences of importing what we could and should make at home.

The aggregate of importations may be classified as follows :

From foreign countries, subject to customs duties		$12,955,183
From Atlantic States, free of duty, 142,219 tons, estimated		28,000,000
From both sources, via Panama		10,835,167
		$51,790,350
To this amount must be added :		
Freight on goods via the Cape	$3,484,090	
Freight on goods via the Isthmus	2,750,000	
Duties on imports, collected here	7,739,248	
		$13,973,338
Total cost of imports by sea		$65,763,688

IMPORTS BY CENTRAL PACIFIC RAILWAY.

General merchandise, valued at	$3,500,000	
Freight and charges on same	1,800,000	
		$ 5,300,000
Total cost of imports in 1870		$71,063.688

These imports, it should be remembered, were received during a year in which every branch of our home productive industry was in a very depressed condition.

TABLE NO. 4.

EXPORTS DURING 1870—HOME MANUFACTURED GOODS.

ARTICLES.	VALUE.
2,000 Bricks	$ 60
3,996 dozen Corn Brooms	14,000
13,324,900 feet Lumber	272,112
2,976,250 Shingles	8,709
Other forest products	2,885
221,945 bbls Flour	1,179,279
1,525 packages Glue	2,167
1,726 rolls Leather	90,000
987 bbls Lime	2,536
2,103 packages Maccaroni	3,728
122 packages Rosin	508
4,000 pairs Blankets	40,000
2,000 kegs Powder	5,000
18 Billiard Tables	23,000
50,000 packages Bread and Crackers	100,000
2,500,000 Cigars	50,000
Saddles and Harness	25,000
Machinery and Iron Work	250,000
400 tons Linseed Oil Cake	12,000
3,000 boxes Soap	2,500
Miscellaneous Articles	100,000
Total Home Manufactures exported	$ 2,202,205

EXPORTS, GENERAL, BY SEA AND RAILWAY (INCLUDING HOME MANUFACTURES.)

Merchandise by sea, per Custom-house returns	$17,848,160
Merchandise per railway, as per list	2,750,000
Treasure by sea and railway	32,983,140
Total exports	$53,581,300

The above exports, including all our grain, wool, wine and treasure, leaves a balance of trade against us of $17,482,388; to which should be added at least 20 per cent. for importers' profits and commissions, and the proportion of the treasure exported that belonged to the people of Nevada and Oregon, say $3,000,000, which swells the balance against us to upwards of $25,000,000 in a single year.

It is not improbable that some of the items in the above estimates are incorrect in many minor particulars, because it is impossible to obtain correct data for such a compilation; but the general fairness and application of these statistics will be admitted by every disinterested person who will take the trouble to investigate them.

To illustrate how some of these estimates were arrived at, the exports per railway are given in detail:

EXPORTS BY CENTRAL PACIFIC RAILWAY FOR ELEVEN MONTHS IN 1870.

22.100	pounds	Blankets	at 50	cents	per pound	$ 11,050
877,074	"	Fish	" 10	"	"	87,707
85,618	"	Fruit	" 10	"	"	8,561
14,094	"	Glue	" 20	"	"	2,980
72,940	"	Hides	" 20	"	"	14,588
99,404	"	Hops	" 12½	"	"	12,862
610,030	"	Leather	" 25	"	"	152,509
20,475	"	Quicksilver	" 60	"	"	12,285
160,874	"	Wheat	" 2	"	"	3,217
1,376,451	"	Wine	" 6	"	"	82,587
8,035,309	"	Wool	" 20	"	"	1,607,061
6,090,031	"	Miscellaneous	" 6	"	"	365,501
Total for eleven months						$2,360,872
Estimate for year						$2,750,000

But admitting, for argument's sake, that the above value of imports is estimated fifty per cent. too high, and that of exports the estimates are twenty-five per cent. too low, the consequences of starving our local manufacturing interests by the importation of goods we could make at home would still be most conspicuously apparent upon a careful study of these lists of imports and exports.

Let us look, for instance, at the items of Leather and Hides in the list of exports, and Boots and Shoes in the imports. These show that during 1870 we exported 2,425,380 pounds of Hides, which, at the estimated value of 21 cents per pound, amounts to $509,392, and 1,462,037 pounds of Leather, which, estimated at 25 cents per pound, amounts to $365,509, or $874,901 for all the Hides and Leather exported.

Per contra, we imported by sea and railroad 47,500 cases of Boots and Shoes, valued at $3,450,000. But, including importers' profits, commissions, freight and other incidental expenses, these imported goods cost the people of this State at least $6,000,000.

As an interesting subject of comparison, it may be stated that the value of all the Wheat exported from this State in 1870, according to the Custom-house returns, amounted to $7,974,345, when on board ship ready for sea. From this estimate must be deducted the cost of 4,197,397 bags, at, say 12½ cents each, or $503,687, and at least 10 per cent. of the total valuation for commissions, insurance and incidental expenses, or $800,000, leaving the actual price of the Wheat $6,670,658, or only $670,000 above the cost of Boots and Shoes imported. If we deduct the Wheat received from Oregon, which is included in our exports, it is doubtful whether our Wheat export covers the cost of Boot and Shoe imports.

The excellence of the home-made goods in this line leaves no room to doubt the skill of the local workmen in this department of our manufacturing industry, while our home-made Leather is unsurpassed in quality. With such facts patent to all, the question of exporting raw materials and importing manufactured goods is condensed into a single sentence. Why is such a ruinous system tolerated by a people generally regarded as enterprising and intelligent ?

Let us examine into this subject a little more closely, and trace the effects of such a system. The making of the 47,500 cases of Boots and Shoes imported gave employment to several thousand men, women and children in the various ramifications of the business. The wages of these people sustained hundreds of small store-keepers, increased the circulation of money, and gave an impetus to every department of business in the localities where these goods were made, and aided in making those communities wealthy and powerful.

Now look on that picture and on this:

The preparation of the Hides and Leather exported afforded employment to but few persons, while the costs of the imported Boots and Shoes required by our working classes and their families absorb a large portion of their earnings, which is not expended here to sustain other branches of business, but is sent abroad to sustain those who compete with our local manufacturers. This system is the cause of the enormous balance of trade against us, and of the dejection and poverty that dwell in the homes of so many of our mechanics and artisans.

We send away, in the cheapest form, our substantial resources in exchange for inferior materials, increased 50 to 100 per cent. in value by the labor of our competitors, while our local work-people are compelled to work for wages insufficient to maintain them comfortably.

Those who supply us with what we should make ourselves retain most of the wealth we send to them, while all they send us is consumed. Is it any wonder that they become rich and that we grow poor ?

It is exceedingly painful to be compelled to depict the condition of so great a State as California in such sombre colors. But it is better, both for the capitalists and the producers of capital, to be honestly informed of the state of affairs than it is for them to be cheated with glowing pictures of a prosperity that has no existence.

There may be exhilaration in rapidity of progress, but it should not be forgotten, while enjoying such exhilaration, that the greater the velocity the greater the shock in the event of a sudden stoppage. Facts are very stubborn things, and it is a very stubborn fact, only partially illustrated by the above figures and remarks, that the policy of the people of this State towards their manufacturing interests—their encouragement of foreign manufacturers and neglect of those at home—is absolutely ruinous.

The inevitable effect of such a policy is clearly and forcibly illustrated in the following tables. No. 6 exhibits the actual and assessed value of every description of property owned by the people residing in the State.

The columns in this table, referring to the actual value of real estate and personal property, were compiled from the Federal census returns for 1870, and represent the estimate each individual gave of his own property. The columns showing the assessed value were compiled from the Surveyor-General's report to the Legislature, and from information obtained by direct correspondence with county officers, in cases when the Surveyor-General's report was incomplete.

The reader's particular attention is requested to the inequality in the assessed value of property in the several counties, because this unfairness in levying the expenses of the State will be subsequently referred to in this Essay as one of the causes that impede the development of our manufacturing interests. [See pages 176, 177.]

According to that table, the very highest estimate of the value of every description of property in the State, or owned by persons residents therein, in 1870, amounted to $628,788,017.

Table No. 5 exhibits the value of merchandise and treasure publicly exported from the State from 1848 to January 1, 1871. The aggregate of these exports foots up the enormous amount of $1,175,052,956, or $546,264,943 more than the highest estimate of the value of all the property owned in the State, demonstrating the results of exporting raw materials and neglecting our home manufacturing interests, by proving that we have irrecoverably lost upwards of five hundred millions of dollars of actual wealth in little more than twenty years.

If to the drain on our resources by exportation be added the State and County debts, and mortgages held on private property, which are lawful liens on what we have retained, the balance against our present policy will be increased $100,000,000.

Is not the investigation of such facts and figures entitled to consideration ?

The only aim of their author has been to obtain such consideration.

TABLE NO. 5.

VALUE OF MERCHANDISE AND TREASURE EXPORTED FROM CALIFORNIA, FROM JANUARY, 1848, TO DECEMBER, 1870.

YEARS.	MERCHANDISE.	TREASURE.	TOTAL EXPORTS.
1848 to 1850	$2,000,000	$66,000,000	$68,000,000
1851	1,000,000	45,989,000	46,989,000
1852	1,500,000	45,779,000	47,279,000
1853	2,000,000	54,965,000	56,965,000
1854	2,500,000	52,045,633	54,545.633
1855	4,189,611	45,161,731	49,351,342
1856	4,270,516	50,697,432	54,967,950
1857	4,369,758	48,976,692	53,346,450
1858	4,770,163	47,548,026	52,318,189
1859	5,533,411	47,640,462	53,173,873
1860	8,532,439	42,325,916	50,858,355
1861	8,888,072	40,676,758	50,564,830
1862	10,565,294	42,561,761	53,127,055
1863	13,877,399	46,071,920	59,949.316
1864	13,371,752	55,707,201	68,978,953
1865	14,554,130	44,426,172	58,980,302
1866	17,281,848	44,365,668	61,647,516
1867	22,421.298	40,671,797	63.093,095
1868	22,844,235	36,358,096	59,202,331
1869	20.846,379	37,287,114	58,133,463
1870	17,848,160	32,983,140	50,831,300
Totals...	$204,064,435	$968,238,521	$1,172,302,956

To which must be added $2,750,000 exported by rail in 1870, making the total value of public exports, $1,175,052,956.

The most conclusive proof of the views expressed in this Essay, that the exportation of raw materials never enriches a community, is furnished by comparing the figures in Table No. 4 with those in Tables No. 7 and 8, which exhibit the exports of treasure since 1862. This comparison shows that in proportion as the value of raw materials exported increased, the supply of money decreased and the value of imports increased.

TABLE No. 6.

ACTUAL AND ASSESSED VALUE OF PROPERTY OWNED IN CALIFORNIA IN 1870.

COUNTIES.	ACTUAL VALUE.			ASSESSED VALUE.			DIFFERENCE.
	REAL.	PERSONAL.	TOTAL.	REAL.	PERSONAL.	TOTAL.	
Alameda	$19,098,850	$4,523,650	$23,622,500	$9,621,800	$2,164,671	$11,786,471	$11,836,029
Alpine	246,205	100 320	346,525	246,205	100,320	346,525	....
Amador	2,554,530	1,873,960	4,428,490	1,167,525	785,419	1,952,944	2,475,546
Butte	3,291,930	2,930,900	6,222,830	2,025,636	1,758,378	3,784,014	2,438,816
Calaveras	595,673	1,196,076	1,791,749	650,377	473,831	1,124,208	667,541
Colusa	5,403,274	3,294,794	8,696,068	2,403,279	1,935,762	4,339,041	4,357,027
Contra Costa	4,339,470	2,339,483	6,678,953	2,807,621	1,118,964	3,926,585	2,752,368
Del Norte	337,650	380,995	718,645	202,821	283,763	486,584	232,061
El Dorado	1,539,802	1,613,454	3,153,256	1,135,042	1,008,899	2,143,941	1,009,315
Fresno	2,120,055	1,654,240	3,774,295	1,706,301	1,307,297	3,013,598	760,697
Humboldt	2,156,480	1,975,838	4,132,318	1,165,120	1,001,420	2,166,544	1,965,774
Inyo	544,190	574,815	1,119,005	231,065	399,704	630,769	488,236
Kern	965,750	2,202,610	3,168,360	668,513	1,101,555	1,770,068	1,398,292
Klamath	255,785	270,090	525,875	153,484	257,877	411,361	124,514
Lake	887,350	378,940	1,266,290	332,061	377,893	709,954	556,336
Lassen	367,700	568,365	936,065	189,800	333,080	522,880	413,185
Los Angeles	7,737,731	3,819,026	11,556,757	4,356,609	2,311,331	6,667,940	4,888,817
Marin	4,396,965	2,683,093	7,080,058	2,751,816	1,022,939	3,774,755	3,305,303
Mariposa	670,500	659,275	1,329,775	613,075	584,398	1,197,473	132,302
Mendocino	1,710,140	1,971,747	3,681,895	618,546	1,593,977	2,212,523	1,469,372
Merced	2,462,132	1,732.381	4,194,513	1,032,818	1,206,388	2,239,206	1,955,307
Mono	138,975	222,985	361,960	120,585	196,123	316,608	45,352
Monterey	5,840,241	3,478,580	9,318,821	4,417,551	1,241,906	5,659,457	3,659,821
Napa	8,041,940	4,527,575	12,569,515	2,849,175	1,178,449	4,027,624	8541,891

Nevada	6,334,055	4,584,200	10,918,255	4,451,814	2,419,158	6,870,972	4,047,286
Placer	3,334,108	2,984,217	6,318,325	2,597,605	1,839,540	4,437,145	1,881,176
Plumas	1,068,555	1,222,610	2,291,165	571,226	661,133	1,232,359	1,058,806
Sacramento	13,014,360	25,856,435	38,870,795	5,718,275	5,455,429	11,173,704	27,697,091
San Bernardino	1,306,685	995,630	2,302,315	722,633	474,637	1,198,270	1,105,045
San Diego	2,856,097	1,624,359	4,480.456	3,051,617	1,474,589	4,526,206	954,250
San Francisco	165,259,771	97,796,741	263,056,512	72,500,000	29,587,989	102,087,989	160,968,523
San Joaquin	15,773,545	7,699,260	23,472,805	5,366,060	2,476,710	7,842,770	15,630,035
San Luis Obispo	1,956,678	1,432,338	3,389,016	978,339	716,169	1,694,508	1,694,508
San Mateo	14,272,400	9,014,425	23,286,825	1,598,981	343,050	1,942,031	21,344,794
Santa Barbara	7,370,752	3,525,269	10,896.021	884,669	729,418	1,614,087	9,281,934
Santa Clara	31,180,633	8,696,780	39,877,413	8,801,715	3,039,988	11,841,703	28,035,710
Santa Cruz	4,204,285	2,012,190	6,216,475	1,751,569	835,394	2,586,963	3,629,512
Sierra	1,160,494	1,107,185	2.267,679	928,395	903,748	1,832,143	435,536
Shasta	829,722	1,014,585	1,844,307	367,325	706,656	1,073,981	770,326
Siskiyou	1,593,447	2,408,600	4,002,047	1,547,145	2,122,330	3.669,475	332,572
Solano	14,487,415	4,870,295	19,357,710	5,242,939	1,702,787	6,945,726	12,411,984
Sonoma	10,301,467	5,233,951	15,535,418	7,026,148	4,279,129	11,305,277	4,230,141
Stanislaus	3,847,700	2,891,415	6,739,115	2,016,606	1,189,451	3,206,057	3,533,058
Sutter	2,030,708	1,676,940	3,707,648	1,122,442	981,250	2,103,692	1,603,956
Tehama	2,302,702	1,364,584	3,667,286	1,535,135	909,723	2,444,858	1,[illegible]22,428
Trinity	560,941	515,524	1,076,465	78,675	517,486	596,161	480,304
Tulare	1,504,100	2,340,890	3,844,990	764,000	1,737,968	2,501,968	1,343,022
Tuolumne	829,465	1,066,380	1,895,845	600,997	585,227	1,186,224	709,621
Yolo	9,078,565	3,811,282	12,889,847	2,621,910	1,831,563	4,453,473	8,436,374
Yuba	2,336,808	3,550,956	5,887,764	2,214,115	1,852,042	4.066,157	1,821,607
Totals	$394,517,784	$234,270,233	$628,788,017	$176,527,180	$93,116,908	$269,644,088	$359,143,929

THE CAUSES THAT OPERATE AGAINST THE MANUFACTURING INTERESTS.

The primary cause and parent of a whole mischievous brood is our *peculiar currency*, which is more expensive, more unsuited to the requirements of trade and more difficult to retain than that in use by any other civilized community.

It is not an easy matter, under any circumstances, to remove a deep-seated popular prejudice. The difficulties attending such an undertaking are greatly increased when the local press is under the influence of those who profit immensely by pandering to such a prejudice. Because the press being the molder of popular opinion, when it submits favorably only one side of a great question for consideration, necessarily makes that side of it more popular than that which has no avenue to state its case fairly. The use of a metallic currency in this State is precisely such a prejudice.

At the risk of all the consequences of attacking the money power in its stronghold and of exciting the ire of the press, an attempt will be made to demonstrate that a strictly metallic currency is the great impediment to the manufacturing interests of the State.

No argument, as a general rule, is less forcible than that which rests on "what might have been." Yet it may be well, in order to illustrate the bearings of this important subject, to refer to what might have been the condition of affairs had those who control the finances of the State adopted the National Currency when it was first introduced; because there is no good reason to doubt that had they done so, California would to-day have been one of the richest, instead of as she is, one of the poorest States in the Republic. Instead of her mechanics and laborers being but partially employed and the whole capital of the State hypothecated to pay for importations, as at present, every branch of business would have been active, and our manufacturing interests in a flourishing condition. Immigration would have been encouraged by providing employment for thousands of mechanics and workmen and women in the manufacture of goods for both the home and foreign markets.

In 1862, when the National Currency was first presented to the American people as a "forced loan," and an indirect test of their loyalty, California contained, at a fair estimate, $25,000,000 in gold and silver coin. In a very short time after the issuance of the Legal Tender notes, they became greatly depreciated, so much so, as to be quoted in this market at 38 to 40 cents on the dollar. The National Bonds issued at the same time, and bearing a liberal interest, were purchasable with this depreciated currency at its original value. Now, had our local financiers made of "necessity a virtue" at that time, and invested the $25,000,000 of coin under their control in Legal Tender notes and Federal Bonds, the increase in value of these bonds and notes would in six years have added sixty per cent. to the active capital of the community and expanded every department of productive industry in a corresponding raito, because business is always governed by the amount of capital employed in its conduct.

Such a course would have given us the additional advantage of being able to transact our local trade in a currency which, being of more value at home than abroad, would not have been drawn from circulation to pay for goods manufactured abroad.

It would also have given us a banking system, under responsible supervision, which would inspire confidence, essential in order to obtain capital from abroad. It would have insured us *cheap capital*, because the Federal Government allowing six per cent. on funds invested in such banks, and exempting their funds from taxation, enables the National Banks to loan their funds at less interest than would satisfy an irresponsible private corporation, whose limited means must earn sufficient to meet all current expenses and losses, and to return a large interest to the stockholders.

The experience of every country has demonstrated that a strictly metallic currency is an obstacle to the expansion of manufactures, trade and commerce. With the exception of California, there is not a civilized community on the face of the earth that uses such a currency in the transaction of its business.

The supply of gold never equals the demand. Here the demand for export always restricts the supply for home use, consequently there is never a sufficient supply of our peculiar money to meet the wants of trade; and without an ample supply of money, neither trade nor manufactures can ever be active.

With but little more than 500,000 inhabitants, not one-fourth of whom are producers, California has produced more gold during the past twenty years, than all the rest of the world, and, notwithstanding its people employ their staple product as an exclusive currency, they possess less of it *per capita* than the people of countries which do not produce an ounce of gold, nor use that metal for currency. The primary cause of this state of affairs is: the excessive rates of interest on capital, rendered possible of exaction through the limited supply of an expensive, peculiar currency; and, secondly, the importation of manufactured goods, rendered unavoidable through the excessive interest on capital, which precludes its profitable employment in home manufactures.

The tables of imports and exports presented in this Essay prove that the balance of trade against us, through these causes, exceeds in amount the product of our gold mines. The exports of treasure for several years past, as will be seen by the following tables, have exceeded the product, and have reduced the volume of the currency to but little more than one-third of its proportions in 1862, and threaten to overwhelm us in disaster by contracting the supply to a still greater extent.

The receipts and exports of treasure from 1862 to 1871 are presented in the following tables, compiled from the Custom-house books and from statistics published in the leading journals of the State:

TABLE NO. 7.

RECEIPTS AND EXPORTS OF TREASURE FROM JANUARY, 1862, TO JULY, 1871.

YEAR.	RECEIPTS.	AMOUNT.	YEAR.	EXPORTS.	AMOUNT.
1863...	....	$ 50,297,349	1863...	....	$ 46,071,920
1864...	....	53,513,383	1864...	....	55,701,201
1865...	....	53,744,399	1865. .	....	44,426,171
1866...	....	46,776.241	1866...	....	44,365,666
1867...	....	50,597,600	1867...	....	41,676,722
1868...	....	51,173,955	1868...	....	35,444,395
1869...	....	49,286,474	1869...	....	37,287,117
1870...	....	43,560,055	1870...	....	32,983,140
1871...	....	5,493,338	1871...	.. ..	8,138,523
	Total...........	$404,442,794		Total...........	$346,094,855
	Excess of receipts over public exports..................				$ 58,347,939

From which must be deducted the Customs duties collected at this port, which are not included in the list of public exports.

TABLE NO. 8.

CUSTOMS DUTIES COLLECTED AT SAN FRANCISCO FROM 1862 TO 1871.

YEAR.	AMOUNT.	YEAR.	AMOUNT.
1863......................	$4,688,399	1868......................	$ 8,550,411
1864.........	6,378,384	1869......................	8,339,379
1865......................	7,812,868	1870......................	7,752,181
1866......................	7,189,763	6 months, 1871..........	3,408,381
1867......................	7,541,247		
Total,....................................			$61,666,013

To this amount must be added nearly $8,000,000 in gold transmitted through the Post Office, and the amount supplied to the people of Nevada, Oregon, Utah, Idaho and Montana, which is not included in any returns of exports. As nearly all the coin used in those States and Territories was obtained from this State, this amount, at a very low estimate, cannot be less than $20,000,000 in nine years. Deducting from the Customs duties $9.000,000 transferred from the Sub-Treasury on credits placed in the Federal Treasury at New York, the balance of exports above receipts of treasure foots up $17,629,675 since 1862, or more than two-thirds the metallic currency the State is supposed to have contained in that year.

The precious metals used in the arts and manufactures should also be deducted from the receipts, as it is generally coin, or bars obtained from the Mint, that are used for these purposes.

GOLD AND SILVER USED IN MANUFACTURES IN 1870.

	OZ.	VALUE.
Gold used by Jewelers in San Francisco	7,087	$127,000
“ “ by Dentists	627	12,540
“ “ by Gold Beaters	320	6,400
“ “ by Photographers	36	720
“ “ by Electroplaters	12	402
Gold Leaf used by Bookbinders and other trades		14,733
Gold Quartz used by Jewelers		3,800
Gold used by Jewelers and others in interior counties		87,007
Total Gold used in manufactures		$252,440

	OZ.	VALUE.
Silver used by Jewelers and Plate Makers	65,728	$ 81,000
Silver used by Jewelers and Photographers	2,127	2,658
Silver used by Jewelers and Electroplaters	700	750
Total Silver used in San Francisco	68,555	$84,408
Quantity used in interior counties		7,850
Total value of Gold and Silver used in the State in 1870		$344,698

Estimating the consumption at the same rate per annum from 1862 to 1870, the aggregate amounts to $3,102,282.

As a familiar illustration of the danger attending the use of a strictly metallic currency, and of the very limited supply of our peculiar money there is in the State, attention is called to a few circumstances within the remembrance of most of the readers of this Essay:

A year or two since the whole business of the State, it will be remembered, was nearly brought to a stand-still in consequence of there not being sufficient of our peculiar money to move the abundant crop of wheat from the fields of the producers to tide water. The Federal Government was appealed to in the emergency, and asked to make special arrangements to avert what the press, with singular unanimity, declared would be disastrous consequences, should the favor asked be denied. The Federal Government, with its characteristic care for the welfare of the country, overlooked the fact that the people of California had brought the threatening danger on themselves by rejecting the National currency, promptly transferred $2,000,000 of gold coin from the Federal Treasury into the coffers of the local banks, and the peril of a collapse in business was averted for the time.

It will also be remembered that on the outbreak of the recent European war the price of gold became so high at New York as to make it very profitable to send there. So large were the exports by rail that we were again threatened with disaster by being depleted of our peculiar currency. In this instance, the railway, telegraph and express companies combined to make the expenses of transferring gold out of the State too high to leave any profit on such transfers, and the peril of a collapse in business was again averted.

While it must be admitted, under the circumstances of our peculiar currency, that the course adopted by the railway, telegraph and express companies prevented a very serious disturbance of business, it should not be forgotten that their action was an unwarrantable interference with the private rights of individuals.

The merchant controling a thousand or a million dollars has an absolute right to transfer his money to wherever it is most profitable to himself.

The infringement upon this right, in the instance referred to, has not been without effect on foreign capitalists, who can never be induced to place their money where it is not available for precisely such emergencies. Had the Federal currency been in circulation here, there would have been no necessity for such a mischievous interference with the private rights of individuals.

It would not be possible to present the danger imminent through this source in a stronger light than is thrown upon it by the above circumstances.

If the supply of a couple of millions averted a disaster in the one instance, and prevented the export of not more than a million in the other, the question must obtrude itself on the mind of every intelligent man, "If such comparatively small amounts can derange our whole system of business, are we not in constant danger of such derangements?"

California, furnishing seven-eighths of the gold used in the whole Republic, must give up a portion of her home supply whenever the other States require it; and there never has been a time when they require it so much as at present, for, according to the New York *Journal of Commerce*, the export of treasure from New York from 1st January, to 1st July, 1871, amounted to $44,738,410—an amount which has been exceeded only once in the past twenty years—and the demand is still so urgent, that twenty-dollar pieces are purchased at a premium of nearly one per cent. for exportation. The exports from Boston and all the other Atlantic ports are equally large.

It is worthy of special consideration that the circumstances of the people of the Atlantic States, their manufacturing and other industrial affairs are not in any way effected by this enormous drain of treasure. The cause of this immunity is, that the currency with which their business is conducted is of more value at home than it is abroad; while with us the export of an extra million of dollars, or even the probability of such a circumstance, causes a derangement of business, because our peculiar currency is of more value abroad that it is at home.

Were the people of the Eastern States using a metallic currency, or one based on specie, the export of so large an amount of treasure would have caused one of those financial disasters which are inevitable in every nation or community employing a currency liable to a demand for exportation.

This well-understood law of finance compelled the Federal Government to change the value of our silver currency in 1853. At that time our silver coins were intrinsically worth a per cent. more than their nominal value, and this caused them to be in demand for export. To prevent the drain of silver, and the impediment to business caused thereby, the coinage of the silver dollar was altogether discontinued, and the other coins of this metal debased 6 per cent., as compared with their value in gold. This explains why so much silver is used in this State. The purchaser of gold, who allows 1½ per cent. discount on silver, makes a profit of 4½ per cent. by the export of the gold.

It matters not how much abuse may be heaped on the National currency, or on those who advocate its general use in this State, the experience of ten years of the most severe test has demonstrated the fact that a paper currency based on the credit of a wealthy Nation, for exclusive use amongst its own people, with which its whole internal revenue is collected and all public services are paid, and its whole internal trade can be conducted, is the safest and best currency in the world.

The progressive spirit of the people of this Republic has exploded not a few of the traditions and notions of those of the old world on matters of art, commerce, war and manufactures.

Sawing and sewing machines, lightning printing presses and telegraphs, American inventions, are universally recognized as great aids in the expansion of commerce and manufactures. Monitors, iron-clads and monster Columbiads, also American inventions, have been adopted by every nation as improved implements of war.

Universal suffrage and a strictly representative form of government are American institutions, for the enjoyment of which the peoples of the world are sighing. But, great as has been the influence of American inventions and institutions on the commerce, trade, manufactures and social and political condition of mankind, the establishment of a system of finance, which leaves gold for exclusive use as an international currency and employs for home use a paper currency based on the public credit, will effect much grander reforms in the trade and commerce of the world and in the social condition of humanity, by preventing those periodical financial disasters, which bring misery and suffering on millions of innocent heads by disturbing the course of trade and throwing out of employment the working classes.

The American system of finance is as certain to be adopted by the rest of the world as have been the other inventions and innovations of the American people.

THE COSTS OF MAINTAINING A METALLIC CURRENCY.

Attention is called to the following facts and figures, which show some of the expenses attending the use of our peculiar currency.

The Federal Internal Revenue collected in the City of San Francisco in 1870 amounted to $3,368,226. The collections of this Revenue in the whole State amounted to $4,983,700.

The receipts of the Post-office in San Francisco during 1870 amounted to $1,011,731, and those of all the Post-offices in the State to nearly $3,000,000.

The receipts of the various Federal Courts and offices in the State exceed $3,000,000 annually.

The freight and charges on cargoes received from the Atlantic States in 1870 amounted to nearly $2,000,000.

The whole of the above amounts, $12,000,000, were paid in Federal currency, as were also upwards of a million of dollars paid as fares and freights to the Pacific Railroad Companies, and another million was used in business, and to remit by mail through the Post-office, or, say, $14,000,000, of the Federal currency is required annually to transact the business of the people of this State. This money, being uncurrent, must be purchased from brokers and money changers, who charge from one to two per cent. more for it than its value according to gold. This entails an expense of nearly $200,000 per annum on the business of the State. A rather heavy tax for such a privilege.

The working classes of this State, educated by the press to a false view of this subject, while hugging to their bosoms the delusion that the payment of their wages in gold is, in some inexplicable way, an advantage to them, are rarely if ever paid in that metal. Fully three-fourths of the employers of labor in the State pay their hands in silver, which is intrinsically worth six per cent. less than gold.

The wear and tear of gold coin, according to the estimates of the best authorities on the subject, averages three per cent. per annum, a price equal to the rental of money in Europe. The cost of the Federal currency does not exceed one-tenth of one per cent. per annum for wear and tear—a new note being obtainable for a tattered one at any of the Federal banks free of expense.

The restriction of the currency to gold, (silver above $5 in amount not being a Legal Tender,) enables a few individuals to regulate the rate of interest on money. Herein lies the very root of the evil that prevents the development of our manufacturing interests. It is an aphorism in finance, that "whatever power, be it a government, a corporation or an individual, controls the currency of a community, such controlling power fixes the rate of interest on money in such community."

It is the excessive rate of interest on a limited supply of money controlled by private parties that seriously interferes with the manufacturing interests, and causes the balance of trade to be against the State. The parties controlling this money have a direct pecuniary advantage in the continuation of the existing condition of the manufacturing interests; because their limited funds are more profitable when employed to aid speculations and importations than they would be if employed in productive industry.

This very important fact is clearly illustrated by comparing the capital employed in stock and real estate speculations, in importations and in manufactures.

The sales of real estate in this city alone during 1870 amounted to $15,630,272. In 1869 they exceeded $30,000,000.

The sales of stocks and shares at the Stock Exchange in 1870 amounted to $51,186,450, and in 1869 they amounted to nearly 70,000,000, and many millions of dollars worth were sold privately.

The value of imports in 1870 exceeded $71,000,000. The capital employed in manufactures did not amount to $20,000,000.

The cause of this ruinous system is clear. Speculators and importers obtain all the accommodation they require at the commercial banks. Real estate speculators have the whole of the immense funds of the Savings Banks under their exclusive control, while the manufacturer can obtain no accommodations at any of the banks.

The effects of this policy are seen in the following statement:

The $20,000,000 employed in manufactures paid $21,000,000 for labor and nearly $30,000,000 for materials, which employed other labor in their production and preparation, and thus aided in sustaining every branch of business by increasing the circulation of money. For it should be remembered that it is the money paid for wages and materials that supports the active trade of every community.

The much larger capital employed in stock and real estate speculations afforded employment to but few persons, and set very little money in circulation. The capitalist, controlling millions of dollars, by means of which he can "bull" or "bear" the markets whenever it suits his caprice or interests, though he make a million by such an operation, does not employ an additional laborer or add a dollar to the circulating medium. On the contrary, he absorbs the capital or savings of a swarm of persons possessing moderate amounts, which they are led to invest in the stock "influenced" by the millionaire, under the infatuation that they can win in a game in which he has packed the cards to make whatever turns up trumps for himself.

The expenses of maintaining a metallic currency are so clearly shown in the following illustration that further reference to the subject should not be required.

Estimating the funds employed by all the savings banks in the State at $38,000,000 and those of all the commercial banks at $30,000,000, and calculating that the whole of this capital earns, as interest, an average of 10 per cent. per annum, this interest foots up $6,800,000.

Had we National Banks and currency, the rate of interest would be only 6 per cent, (it is less in New York), and would amount to $4,080,000, or a difference of $2,720,000 per annum in favor of the National currency and cheap capital.

The payment of nearly $3,000,000 annually to private corporations for the privilege of using their "credit" is not the worst feature of the case. The rejection of the National banking system and currency places the bulk of the banking business of the State in the hands of foreigners, who annually draw upwards of $1,500,000 out of the State as dividends to stockholders residing in Europe, because the people here accept the credit of these foreign bankers in preference to that of the Federal Government.

The stagnation pervading every department of business is not a whit too severe a punishment for such folly and lack of patriotism.

THE EFFECTS OF THE RATE OF INTEREST ON CAPITAL ON GENERAL BUSINESS.

The rate of interest on capital influences the expenses attending every branch of business, as well as the price of labor.

It is not so much the high price of labor in this State that impedes the manufacturing interests, as the excessive interest on capital.

The more liberally the working classes are rewarded for their labor, the more active is general business, because it is the wages of labor that form the circulating medium which facilitates production and consumption.

Business is never vigorous in the community in which the working classes earn only sufficient to barely support themselves and families.

It is the surplus earnings of labor that creates free capital.

The wages of labor in a community where the rate of interest on capital is excessive, as in this State, cannot fairly be compared with the wages paid in other communities, where the rate of interest is low, because the purchasing power of a dollar is not as great in the former as in the latter. The merchant or store-keeper, the rental of whose capital costs 12 to 18 per cent., cannot sell his goods as cheaply to consumers as those whose capital costs only 2 to 4 per cent. It is the high rate of interest on capital that increases the costs of living and keeps up the rate of wages.

Were the rate of interest as low here as it is at New York or Boston—and the only reason why it is not is our peculiar currency—labor would be as cheap here as in either of those cities, while the working classes would have the advantage of full employment, a genial climate and generous soil, which make all the necessaries of life cheap, and thus increase the purchasing power of their wages.

It is neither just nor politic, under the existing state of affairs, to compel the working classes to bear all the effects of the change in business brought about by the completion of the trans-continental railway. Labor has suffered a serious depreciation since that event, while capital still demands the same rental for its use as it received before the railroad was completed. Capital is better able to bear the burden of such changes than labor, because its earnings are all gains, and add to its productiveness, while the earnings of labor are all absorbed in expenses, and cease with its employment.

Thus, high interest on capital interferes with business directly, by increasing its expenses, and indirectly, by oppressing the laboring classes, its chief supporters.

THE EFFECT OF SAVINGS BANKS ON THE MANUFACTURING INTERESTS.

There are few institutions more advantageous to the interest of an enterprising community than well-conducted Savings Banks, because they encourage thrift and industry and increase the means for the employment of labor by utilizing the surplus earning of the working classes.

When Savings Banks confine their operation to these, their only legitimate objects, they render an important public service.

It is much to be regretted that these institutions in this city do not render such service. Instead of employing their immense funds—a considerable portion of which is the surplus earnings of labor—to sustain and extend the manufacturing interests and thus increase the avenues for the employment of the classes that created and maintain them, they employ all their funds to encourage speculation in real estate.

According to the published reports of the condition of these Savings Banks in this city, for June 1870, when, as already shown, only about $20,000,000, were employed in manufactures in the whole State, these Banks held on deposit the enormous sum of $29,842,112, which has been increased to $34,541,597, in July, 1871. Not a dollar of this enormous amount has been loaned to encourage manufactures or any other branch of productive industry. The whole of it has been employed in inflating the value of real estate. Thus the greater portion of what should be the active capital of the State is tied up and rendered worse than useless to the manufacturing interests.

The parent of such a ruinous system is the excessive rate of interest on capital; the motive for its maintenance, unmitigated selfishness, which risks future permanent prosperity to obtain a present temporary advantage. Neither the system nor its baneful effects would be possible were the National currency in general use, because the supply of capital would be larger and the rate of interest would not be sufficiently high to attract it so generally from productive industry.

It is a dangerous delusion to suppose the deposits in these Savings Banks are exclusively the property of the working classes. The bulk of them belong to wealthy capitalists and non-residents. Were it otherwise, the condition of these Banks would be an unanswerable argument in favor of the existing condition of affairs. Because, if the surplus earnings of the working classes were as large as the increase in the deposits in these banks would indicate, $4,699,485 in a single year, there would be no necessity for a change, because the laboring classes in no other country or community could save as much as those of this city, if these bank deposits be accepted as a criterion. Were there 50,000 working people in this city and each of them had deposited $90 in these banks, the whole of their deposits would not amount to a sum equal to the increase of the deposits in the Savings Banks during the past year—a year in which every department of business and industry has been unusually depressed, and a large portion of the working classes out of employment.

The exemption of mortgages from taxation, an injustice procured through the influence of these Savings Banks, under the pretence that it would reduce the interest on capital, is equal to 3 per cent. in favor of money loaned on mortgage, as against that employed in manufactures or other branches of industry. It is this most unfair distribution of the burden of taxation that increases the deposits in Savings Banks, by absorbing the capital that otherwise would be employed in manufactures; because it is more profitable in the bank than it would be employed in any legitimate business.

If the money deposited in these banks belonged to the laboring, or any class of residents of the State, the greater portion of it and its earnings should be retained at home; whereas, the returns of these establishments recently published, show that in June, 1870, they held $1,947,272, "cash on hand," and in June, 1871, their "cash on hand" amounted to $2,728,325; less $1,592,022 paid as dividends. Now, it is notorious that all the money in the State, outside the Federal Treasury, does not equal one-half the difference between the "deposits" and "cash on hand" of these banks.

The receipts and exports of treasure during the past nine years, as stated in Table No. 7, clearly establish this very important fact.

The causes of this dangerous loss of the cash capitalof the State become obvious on investigation.

For instance: An individual owns a tract of sterile land in the vicinity of the city. Through the aid of these savings banks, (which loan more than the actual value of the property for the purpose), it is subdivided into "homestead lots," and disposed of to mechanics, laborers and other poorer classes. Every purchaser must pay from 2 to 3 per cent. of the amount of the purchase money to the bank's agents in the shape of fees, and 1½ to 2 per cent. per month interest on the loan obtained from the bank. The purchasers of many of such lots obtained additional loans to build a home. Those who did not, continue to pay 18 to 24 per cent. interest on the original unproductive purchase, which, in nine cases out of ten, absorbs more than their surplus earnings and makes them the willing slaves of a power they themselves aid in creating. For, as Henry Ward Beecher says of interest on borrowed money: "No blister draws sharper than interest. Of all the industries, none is comparable to interest. It works all day and all night, in fair weather and foul. It has no sound in its footsteps, but nevertheless travels fast. It gnaws at a man's substance with invisible teeth. It binds industry with its film, as a fly is bound in a spider's web."

In 1869, during the prevalence of the "homestead fever," generated to a great extent by these savings banks, as a means to profitably employ their im mense funds, the payments on homestead shares, held chiefly by the working classes in this city, exceeded $300,000 per month, or $3,600,000 per annum, equal to more than one-third of all the wages paid for labor in the city. According to the statistics of manufactures in Table No. 1, the whole amount of wages paid was only $8,118,057 in 1870, and it was considerably less in 1869.

This picture, though presenting such a terrible aspect that it seems like an exaggeration, is fully corroborated by the fact that the $34,500.000 under control of these banks, in order to pay 10 to 12 per cent. dividends over and above expenses, losses and taxes, must have earned $4,000.000 during the past year. The whole of this amount was gathered from borrowers on real estate, and shows how heavily the owners of property are taxed to keep up the rate of interest on capital, through institutions originally intended to encourage productive industry.

Nor is this the worst feature of the pernicious system that sustains them. The original owner of the land sold for "homesteads," to exempt his funds from taxation and make it productive, deposits them in the savings banks and obtains 10 to 12 per cent. interest on the amount, with which he can live like a prince in the Atlantic States or Europe, because the lower rates of interest on capital in those countries lessen the costs of living. This is one of the leading causes for so much absenteeism among our wealthy classes. A much larger amount of the money collected by these banks is sent out of the State through this avenue than most persons, who have given the subject no consideration, can have any adequate idea of.

Agents of foreign manufacturers also draw largely of the dividends of these banks, which thus encourage the importation of manufactured goods.

In Europe, the interest on capital is rarely above 3 per cent. per annum, and capital is always in excess of the demand. To employ their capital, labor and machinery, foreign manufacturers make heavy consignments of goods to this market, on a venture. The sale of the whole of such a consignment may cover a period of years; but the proceeds of the sales of such portions thereof as may be disposed of from time to time, deposited in these savings banks, and by that means exempted from taxation, insure more than European interest on the whole consignment, should even a considerable portion be sold for "costs and charges." This practice, which prevails very extensively, and is rapidly expanding, inflicts very serious injury on our manufacturing interests.

Thus it is very clearly demonstrated that the existing savings bank system is an injury to the State, by taxing its productive resources to keep up the rate of interest on capital, and by directly encouraging the importation of manufactured goods, which, but for such influence, might be made at home.

What will be the ultimate result of restricting the employment of the immense funds under control of these banks to real estate, is a question pregnant with the financial destiny of this generation.

Can the productive industry of the State, which derives no direct benefit from these banks, continue to pay 12, 10, or even 5 per cent. interest on the funds deposited with them? If not, what then?

HOW THE RATE OF INTEREST ON CAPITAL CONTROLS THE MANUFACTURING INTERESTS.

An excessive rate of interest on capital is a much more serious obstacle to manufacturing industry than the majority of the people of this State appear to think.

Bigots in the barbaric creed that considers nothing fit for money except gold, employing a currency of which the smallest coin in general use is one-tenth of a dollar in value—a currency that frequently causes a difference of 20 to 50 per cent. in the cost of minor articles in constant requirement—such a people cannot readily be induced to calculate the potent influence of solitary cents, their fractions and immediate multiples.

The old adage of our forefathers, "Take care of the pennies and the pounds will take care of themselves," has neither force nor influence with a people, the poorest beggar amongst whom would not stoop to pick pennies from the sidewalk, because they would be as useless as pebbles for the purpose of purchasing the necessaries of life.

Yet, it is the correct appreciation of the value of the fractional portions of the smallest coins that often builds the most colossal fortunes.

Had the elementary principles of political economy and the laws of trade been better understood by all classes of our people, the influence the rate of interest on money exerts over the manufacturing interests would long since have convinced them of the perils of the existing financial system and its peculiar currency.

The influence of the rate of interest on money is more direct on productive industry than it is on speculative enterprises, because the latter are akin to gambling, which is independent of all principles and laws, while the former is controlled by laws which can never be violated with impunity.

The enterprise incident to a cosmopolitan community like California, containing among its elements the most daring and energetic of the peoples of the entire world, attracted together by the desire for wealth—the ruling trait in human nature—cannot be stifled. The controlling motive of such a people must find vent, either in legitimate enterprises or in wild speculations.

The responsibility of diverting the attention of such a people from the pursuits of productive industry and legitimate enterprise, to absorb their energy and means in reckless speculations, rests on those who have wasted both, in the wildest of all speculations, that of attempting to maintain an exclusively metallic currency in opposition to the policy of the whole civilized world.

How the rate of interest on money influences the manufacturing interests may be thus illustrated:

In this city, at this time, (July, 1871,) according to the daily reports published by authority of the leading banks, the rate of interest on money ranges from 12 to 15 per cent. per annum, on call, on first-class collaterals. Those who have no influence with the banks pay from 15 to 24 per cent.

Similar loans to those first mentioned may be obtained by merchants and business men at New York at 4 to 5 per cent., and the second class at 5 to 7 per cent.

In London, the first class of borrowers are accommodated at 2½ to 3 per cent.; the second class at 3 to 4 per cent.

The difference in the rental of money—the very life of trade—it is thus seen, is from 10 to 15 per cent. against the business men of this State, as compared with those of the Atlantic States and Europe.

The rates of interest charged by the savings banks, 10 to 15 per cent., are not taken into consideration in this comparison, because the funds of these institutions are prohibited by law from being employed or loaned on commercial paper.

It should require no special arguments to convince any intelligent person that in countries where money is abundant at 2 to 4 per cent. per annum, every article, the material of which, or the labor employed in its production, must be purchased with money, must be cheaper than in countries where the money employed costs 12 to 18 per cent.

The lower rate of interest on money in the Atlantic States and Europe is the real cause why the manufacturers of those countries can undersell our local manufacturers in our home markets, notwithstanding that the former have to transport their goods across the continent by rail, or almost around the world by sea.

The price of labor in this State, as compared with that of other countries, usually alleged as the cause of the languishing condition of our manufacturing interests, bears no comparison in importance, in the consideration of this question, to the effects of excessive interest on capital and its consequent absorption in speculative combinations.

The Federal tariff on foreign manufactured goods, and the costs of transportation, insurance and incidental expenses on goods imported from the Atlantic States by rail, nearly equal the difference between the cost of such goods made here and those imported. It is the 10 to 12 per cent. difference in the rental of the capital employed in the business in favor of the Eastern and European manufacturers that encourages the importation of a long list of articles which otherwise would be made at home.

It is cheap capital that is required more than cheap labor.

Cheapness of labor is of far less importance, in the consideration of the causes that adversely affect our manufacturing interests, than the *employment* of labor.

In a great and wealthy Republic, dependent on the intelligence and patriotism of its citizens for its existence, in which the humblest and most obscure citizen of to-day may, to-morrow, be called upon to assume the reins of its government, "cheap labor," in the full significance of the expression, is to be deprecated as an evil threatening the vitality of the Republic.

Cheap labor implies ignorance and poverty as the lot of the laborer.

Cheap labor means dwarfing the intellect—the God-like attribute of man—through physical exhaustion. It means an unequal competition between human strength and endurance pitted against steam and the elemental powers acting as motors to metallic machinery—a conflict in which the less intelligence in the laborer, the more valuable his services to the employer.

To maintain our republican institutions in their vigor, it is imperative that the laboring classes have leisure for study and mental culture—ends impossible to attain if incessant toil be required to procure the necessaries of life.

Of what advantage were our public schools, if the seeds of knowledge planted in the infant mind through their influence be "nipped i' the bud," and produce neither flower nor fruit in mature manhood?

Examine the cause of the lack of vitality in our manufacturing interests from whatever point we may, the conviction forces itself upon us that it is the excessive rate of interest on capital—a cause certain in the end to inflict greater injury on those who now reap the advantage of its effects than it inflicts on the working classes.

Then honor to our working men,
The hardy sons of toil,
The heroes of the workshop,
The monarchs of the soil.
Who spans the earth with iron ?
Who rears the palace dome ?
Who creates for the rich man
The comforts of his home ?
It is the patient toiler ;
All honor to him, then ;
The true wealth of a nation
Is in her working men.

THE VALUE OF LABOR IN CALIFORNIA IN 1871.

COUNTIES.	Farm hands per month, with board	DAY LABORERS.		CARPENTERS AND BLACKSMITHS.	Price of board, per week, for laborers
		Per day, with board.	Per day, without board.	Per day, without board.	
Alameda	$30 00	$2 50	$1 75	$3 50	$5 00
Alpine	40 00	3 00	2 00	5 00	7 00
Amador	30 00	2 50	2 00	4 00	6 00
Butte	30 00	2 50	2 00	4 00	5 00
Calaveras	25 00	2 50	1 75	4 00	4 50
Colusa	30 00	3 00	2 00	4 00	5 00
Contra Costa	30 00	2 50	1 50	3 50	5 00
Del Norte	30 00	2 50	2 00	3 50	4 00
El Dorado	30 00	2 50	2 00	4 00	5 00
Fresno	30 00	2 00	1 50	3 50	5 00
Humboldt	40 00	2 00	1 50	4 00	4 00
Inyo	40 00	4 00	2 50	6 00	10 00
Kern	40 00	3 00	2 00	5 00	7 00
Klamath	30 00	3 00	2 00	4 00	6 00
Lake	30 00	2 00	1 50	3 50	5 00
Lassen	30 00	3 00	2 25	5 00	6 00
Los Angeles	30 00	2 00	1 68	4 00	5 00
Marin	30 00	2 00	1 50	4 00	4 00
Mariposa	36 00	3 00	2 00	4 00	6 00
Mendocino	30 00	2 50	2 00	4 00	5 00
Merced	35 00	2 00	1 25	4 00	6 00
Mono	40 00	4 00	3 00	6 00	8 00
Monterey	27 50	2 00	1 50	3 50	4 50
Napa	28 00	2 50	2 00	4 00	6 00
Nevada	25 00	3 00	2 00	4 00	6 00
Placer	30 00	2 50	1 50	4 00	6 00
Plumas	45 00	3 00	2 00	5 00	6 00
Sacramento	30 00	2 50	2 00	4 00	5 00
San Bernardino	25 00	2 00	1 50	3 50	6 00
San Diego	50 00	4 00	3 00	5 00	7 00
San Francisco	28 00	2 00	1 50	4 00	4 00
San Joaquin	25 00	2 50	2 00	4 00	5 00
San Luis Obispo	30 00	2 00	1 50	4 00	5 00
San Mateo	30 00	2 50	1 50	4 00	4 00
Santa Barbara	30 00	2 50	2 00	4 00	5 00
Santa Clara	35 00	2 50	2 00	4 00	5 00
Santa Cruz	30 00	2 00	1 34	4 00	5 00
Sierra	40 00	3 00	2 00	4 00	6 00
Shasta	30 00	2 50	1 50	5 00	5 00
Siskiyou	30 00	2 50	2 00	4 00	5 00
Solano	30 00	2 50	2 00	4 00	5 00
Sonoma	30 00	2 25	1 75	4 00	5 00
Stanislaus	30 00	2 50	1 75	3 00	4 00
Sutter	30 00	2 00	1 50	4 00	4 00
Tehama	30 00	2 50	1 50	3 50	6 00
Trinity	40 00	3 00	2 00	4 00	6 00
Tulare	40 00	2 50	1 75	3 50	5 00
Tuolumne	30 00	2 00	1 50	4 00	4 00
Yolo	25 00	2 00	1 50	4 00	5 00
Yuba	25 00	2 50	1 50	4 00	5 00

It will be seen, on examination of the foregoing table, that labor is always dearest where in least demand. This arises from the sparseness of the population and the centralization of employment. There is the compensating advantage, however, that where labor is cheapest the costs of living are lowest.

INEQUALITY OF TAXATION AN INJURY TO THE MANUFACTURING INTERESTS.

The inequality of taxation is an injury to the manufacturing interests, by causing the centralization of capital and labor in counties where taxation is lowest, and by preventing the development of the resources of the counties where taxation is highest.

The following table exhibits the rate of taxation in each county in the State for 1870. The rates for the present year have not been materially changed; but it is impossible to obtain similar details to compile such a table for 1871.

The inequality in the rate of taxation becomes more conspicuous when this table is compared with Table No. 6, in which is shown the difference between the actual and assessed value of the property in each county:

TAXATION IN EACH OF THE COUNTIES OF CALIFORNIA IN 1870.

COUNTIES.	STATE TAX.	COUNTY TAX.	TOTAL.	COUNTIES.	STATE TAX.	COUNTY TAX.	TOTAL.
Alameda	86½	$1 30½	$2 17	Placer	86½	$1 73½	$2 60
Alpine	86½	2 42½	3 29	Plumas	86½	1 44	2 30½
Amador	86½	1 60½	2 47	Sacramento	86½	1 53½	2 40
Butte	86½	1 83½	2 70	San Bernardino	86½	1 45	2 31½
Calaveras	86½	4 13½	5 00	San Diego	86½	2 00	2 86½
Colusa	86½	1 24	2 10½	San Francisco	86½	2 21½	3 08
Contra Costa	86½	2 07½	2 94	San Joaquin	86½	3 63½	4 50
Del Norte	86½	1 83½	2 70	San Luis Obispo	86½	1 85	2 71½
El Dorado	86½	1 98	2 84	San Mateo	86½	2 53¾	3 40¼
Fresno	86½	1 25	2 11½	Santa Barbara	86½	2 08½	2 95
Humboldt	86½	2 24	3 10½	Santa Clara	86½	1 21	2 07½
Inyo	86½	2 22½	3 09	Santa Cruz	86½	2 13½	3 00
Kern	86½	1 55	2 41½	Sierra	86½	1 73	2 59½
Klamath	86½	1 90	2 76½	Shasta	86½	1 70½	2 57
Lake	86½	2 13½	3 00	Siskiyou	86½	1 40	2 26½
Lassen	86½	2 00	2 86½	Solano	86½	2 05½	2 92
Los Angeles	86½	1 90	2 76½	Sonoma	86½	1 64	2 50
Marin	86½	1 60	2 46½	Stanislaus	86½	93½	1 80
Mariposa	86½	2 18	3 04½	Sutter	86½	3 21½	4 08
Mendocino	86½	1 83½	2 70	Tehama	86½	1 50	2 36½
Merced	86½	1 20	2 06½	Trinity	86½	1 95	2 81½
Mono	86½	2 13½	3 00	Tulare	86½	1 53½	2 40
Monterey	86½	1 75	2 61½	Tuolumne	86½	3 70	4 56½
Napa	86½	2 35	3 21½	Yolo	86½	1 30	2 16½
Nevada	86½	1 13½	2 00	Yuba	86½	1 68½	2 55

THE RELATIONS BETWEEN CAPITAL AND LABOR.

The oft-repeated assertion, that there exists a *natural* conflict between capital and labor, is a base calumny on the fulcrum and lever that move the world, which Archimedes thought about, but of which we have the demonstration.

When directed for the best interests of both, there is as much harmony between capital and labor as exists between any of the great principles which, under Divine direction, control the physical existence of man.

Intelligence, development—moral, social and physical—were impossible without *both* labor and capital. Manufactures, arts, science, commerce, had no existence but for labor *and* capital. The post of honor in winning their present eminence is fairly due to labor ; because labor does—capital only sustains.

The struggle for supremacy now pending between capital and labor in every civilized country—a struggle, the measure of the force of which is the intelligence of the laboring classes—is unnatural, having its origin in man's selfishness, violating Nature's sublimest laws. The effects of the struggle are proofs, for our instruction, that these laws cannot be violated with impunity.

The clashing of interests between capital and labor is the work of a class, generated by the artificial nature of modern civilization—a class which supplies the world neither labor nor capital, yet manages to obtain the richest fruits of both.

A careful search into the history of the majority of the institutions which to-day control the finances of communities and countries, will show that the founders of these institutions possess no absolute capital unless we accept as true the financial fiction that "credit is capital." By acting as "middlemen" between the producers and users of capital, collecting toll from both, the managers of these institutions have made themselves "masters of the situation," and array labor against capital, using the strength of one to weaken the other, till both lie prostrate at the feet of a power created by the sacrifice of their mutual strength.

Capital being timid and labor thoughtless, any power promising security to the one and employment to the other, always finds supporters, though the pages of the world's history are crammed full of the records of the wrecks of such exhausting alliances.

Labor having produced capital, it would be contrary to Nature's primary principle were the creature greater than its creator.

It is labor only that can make capital productive. Unemployed capital is self-consuming, unemployed labor is merely unprofitable.

Under a Republican form of Government labor should be more powerful than capital. Under intelligent direction, when the laws governing both are better understood by the people, capital will be subordinate to labor, because labor votes legitimately. Capital can only control the votes of those unworthy the privilege of exercising that soveriegn power.

THE INFLUENCE OF THE TARIFF ON THE MANUFACTURING INTERESTS.

Having shown the importance of manufactures and explained some of the causes that operate against them in this State, it would be a serious omission in an Essay of this character were the influence of the Tariff not referred to.

The questions of Tariff, Free Trade, Protection and Revenue, are powerful weapons in the hands of demagogues in swaying popular opinion during a political campaign, owing to the want of knowledge about these subjects among the mass of the people.

Stripped of the extraneous matters in which they are involved by those who have an object in mystifying the people, the Tariff, Revenue, Protection and Free Trade, questions of infinitely more importance than the existence of ephemeral political parties, are as simple as the rules of common arithmetic, and, like those rules, best learned by studying their elementary principles.

Revenue, Protection and Free Trade are subordinate divisions of the great question of a Tariff.

A Tariff, as understood in this connection, is the duty levied on the products of foreign countries. Every nation produces some articles required by other nations which either cannot produce them or not as cheaply. This principle is the basis of "commerce."

The policy of every civilized nation is to exempt from import duties, or the Tariff, raw materials required in home manufactures when such materials cannot be obtained at home, and articles required for food.

It is also the policy of every nation to impose duties on such manufactured articles as enter into competition with similar goods manufactured at home. This principle is the basis of "Protection."

These general laws of nations relating to Trade and Commerce, like all other laws, are modified from time to time to suit the circumstances and condition of each nation.

There is no general principle governing the commercial policy of all nations, consequently the comparisons between the Tariff of one nation with that of another, are of no force or value. For instance, Great Britain, till 1844, levied an almost prohibitory tariff on grain as a "protection" to her agricultural interests, because the value of labor and land at that time caused the production of breadstuffs to be too expensive to sustain competition with those raised on the cheap lands and by the cheap labor on the continent of Europe. But the immense development of the manufacturing interests of England between 1830 and 1844 caused an entire revolution in its commercial policy, because the supply of home-produced breadstuffs was found to be unequal to the consumption by the rapidly-increasing manufacturing classes. England being an island of much smaller dimensions than single counties in this Sate, Sir Robert Peel, the then Premier of that country—a man of extraordinary sagacity—perceiving that it would be impossible to increase the agricultural resources of the Island by Protection, and convinced that England's hope was the development of her manufacturing interests, introduced the famous "Corn Laws," the passage of which opened the markets of England to the grain producers of the world. This measure was as much "Protection" to England's manufacturing interests, as the Tariff of the Federal Government is to our manufactures, because it insures the manufacturing classes of that country a steady supply of cheap food, without which its manufactures could not be sustained.

England also admits, free of duty, all descriptions of raw materials required for manufactures, which is another form of "Protection." But that country collects nearly as much revenue from the tobacco imported from the United States as the United States derives from the Tariff on all the manufactured goods imported from England.

Each nation collects its revenue from sources best suited to the circumstances of its people. The United States, with its immense dominions, undeveloped resources and rapidly increasing population, must protect its manufacturing interests in a manner differing from that adopted by England, because the circumstances of both peoples and countries are dissimilar.

The Federal Government wisely acts on the principle that those who compete with our home manufacturers must bear a portion of the expenses of the Nation, and exacts this payment through a tariff, *which compels foreign manufacturers to pay the difference between the wages paid for labor in this country and in Europe.* The tariff is a greater protection to American labor than any other power, except the ballot.

The policy of the United States Government, from the inception of the Republic, has been "Protection to American Industry." To secure this end "a tariff" has been adopted by every political party which has been entrusted with the administration of the Government. Each has levied duties on foreign imports, both as a protection to home interests and for purposes of revenue. "The Tariff," therefore, owes its origin to neither of the great political parties of to-day. It is the embodiment of the matured will of the people, as the means by which their home and foreign trade and commerce can be regulated, and should be as independent of politics as religion, sunshine and personal freedom. In the early days of the Republic, when its manufacturing interests were in embryo, and the expenses of government insignificant, the tariff on imported goods was nominal. As the enterprise of the people developed, and the resources of the Republic increased, its infant manufacturing interests required "protection" from the powerful competition of older and wealthier countries.

The wisdom of the founders of the Republic led them to perceive that levying a duty on the goods which came in contact with those made at home, in the home markets, was the best means to protect American industry, because the revenue thus derived has the two-fold advantage of insuring a better price for home manufactures and compels the importer to pay a share of the expenses of the Government, and thus lightens the burden of taxation on all classes of the people.

In the present condition of the national affairs, the foresight of the founders of the Government in their policy of a tariff has been the salvation of the Republic.

Through causes unnecessary to explain, the expenses of the Federal Government have become enormous, and must be paid.

The National debt, on July 1, 1871, amounted to $2,398,248,098, less $96,683,900 gold and $9,533,365 in currency. Of this debt, $1,888,133,750 is payable in gold, and bears $44,278,383 annual interest in gold.

The appropriations passed by the last Congress for expenses of the Government for the current year, exclusive of interest on the debt, amounted to $160,000,000.

To meet such enormous expenditures a corresponding revenue must be collected.

The question with the productive classes of the Nation should be: Shall this enormous revenue be collected wholly from us, or shall those who compete with us in the market for our labor pay as much of it as possible?

The policy of the party having control of the national affairs at the present time is "Protection to American Industry," by making importers of foreign manufactured goods bear the burden of taxation and pay it in gold.

This principle of the policy of the present Administration is clearly illustrated by the passage of the Act of July 14, 1870, which reduced the internal taxes on home industry $55,212,000 per annum. During the same session of Congress, nearly $100,000,000 was taken off import duties on articles necessary for the comfort of the working classes.

Any further material reduction in the Customs duties or tariff would be fraught with serious danger, for the following reasons:

As already explained, the gold interest on the Federal bonds, held chiefly in Europe, amounts to $44,000,000 annually. The product of the gold mines in the whole Union does not much exceed this amount. The latest report of the Federal Bank Commissioners shows that there is not exceeding $200,000,000 of gold in all the monetary establishments in the Union. It must be evident to every person of ordinary intelligence that if the payment of interest on the Federal debt to foreign bondholders nearly equals the receipts of gold from the mines, there can be no hope for a change in the present home taxation if foreign imports be, to any extent, exempted from paying their quota. This fact becomes additionally clear when we take into consideration that European capitalists hold $150,000,000 of American State and Municipal bonds, and nearly as much more of railroad and other corporation stocks and bonds, payable, capital and interest, in gold by the people of the United States. The country would be thoroughly drained of its stock of gold in a short time should the Government reduce the supply received through the Customs duties or tariff. In the event of such a misfortune, the Federal Government and the issuers of these bonds and stocks, held in Europe, would be compelled to enter the markets of that country as buyers of gold with which to pay the interest on their indebtedness; such a necessity would entail a heavy load of additional taxation on the productive resources of the country, and place our home manufacturing interests at the mercy of foreign competition.

It is sheer deception to make a distinction between duties levied on imports, for revenue, and those intended for protection. It is self-evident that if the present tariff be required to meet the current expenses of the country, any reduction, under the pretence of encouraging "free trade," would reduce the revenue to a corresponding extent.

For instance: To remove the duties on wools and woolen goods would save the foreign manufacturers and importers $24,000,000 annually, but it would impose an equal amount of taxation on the productive resources of the American people.

The reduction of duty on imports is of much less advantage to the people than it is to importers. As already stated, the last Congress took the duty off nearly all kinds of drugs, coal, salt, and 40 per cent. from coffee and tea, and many other articles. The price of none of these articles is lower to the consumers. The whole amount of the reduction goes into the pockets of the foreign producer and importer.

The condition of this State, as presented in this Essay, illustrates the effects of encouraging importers. The imposition of a tariff averaging 50 per cent. on the value of manufactured goods imported from Europe is not sufficient to keep such goods out of this market. Would it improve the condition of our manufacturing interests to remove the existing barrier that prevents our being flooded with such goods, by reducing the tariff?

Why have so many millions of the working classes of Europe flocked to our shores? To improve their condition by the increased value of their labor here. This increased value depends on a protective tariff. Remove this tariff, and the condition of the working classes in the United States would be worse than that of the same classes in Europe; because, in such an event, all the manufacturing industries would be destroyed in this country and increased in Europe, where labor would be in demand; while here the working classes would be confined to "hewers of wood and drawers of water," because all they could produce, above what would be required to sustain a miserable existence, would be barely sufficient to pay for manufactured goods imported from abroad, which would be much dearer than at present, because there could be no competition in the home market.

Of what avail would be organizations for shortening the hours of labor, or for improving the social and intellectual status of the working classes—results on the success of which depends the permanence of the Republic—were it not for a protective tariff? Taxes and "tariffs" are indispensable adjuncts of civilization. They should be levied so as to press as lightly as possible on the producing classes. If the Customs duties favor importers more than the home producers, and the Nation imports more than it exports, and the imports be manufactured goods while the exports are raw materials, National bankruptcy is inevitable; because nations, like individuals, when they expend more than their incomes, must ultimately become insolvent.

Customs duties are a voluntary tax which any citizen can, to a great extent, avoid paying by purchasing goods of home manufacture or production.

A Protective Tariff is of far more advantage to the working classes than it is to capitalists. Granted that the capitalists of the Atlantic States engaged in manufactures obtain a large profit on their money through the influence of such a tariff, does not their money furnish employment to millions of mechanics, artisans and laborers, and tend to make the Republic independent, wealthy and powerful? Look at home here in California, where capital is not employed in manufactures, where there are not halt a dozen first-class manufacturing establishments in one of the greatest States in the Union, and a large proportion of the sparse population is out of employment. Does not capital employed in speculations and combinations which oppress the working classes make larger profits than in any other State in the Union?

Is it not better for the working classes to encourage the employment of capital in manufactures, by a protective tariff, than it is to drive it into speculative enterprises, such as would follow "Free Trade?"

The larger the profits of capital employed in the development of the State's resources, the better is the condition of the working classes. It is because the profits on capital employed in manufactures in this State do not equal the profits on imports and speculative combinations, that those who have invested heir capital in factories and machinery are compelled to resort to the cheap labor of the Chinese, to cut down expenses. There is not a manufacturer in the State but would prefer to employ white men and women did the expenses of his business permit it.

Capital has rights as well as labor; each is bound to protect its own interests.

It is only when capital is used in combinations to increase the cost of food, clothing, traveling or any other of the necessaries of life, or of business, or is employed in wild speculations, which prevent its use in productive industry, that it become antagonistic to labor. But these are matters not affected by either "Tariff" or "Free Trade."

WHAT WILL AID IN DEVELOPING THE MANUFACTURING INTERESTS.

From the facts and figures presented in this Essay, unless its author's views be altogether erroneous, the remedies for the evils under which the manufacturing interests of the State are laboring will suggest themselves:

A cheaper and more abundant currency, the establishment of National banks, and the conduct of our business in the same currency used by our competitors on the Atlantic Slope.

A material reduction in the rate of interest on capital employed in productive industry, which cannot be accomplished unless the National currency and banks be established.

A reduction in the general expenses of trade as nearly as possible to the level of those existing in the Atlantic States. This will follow the assimilation of the currency and interest.

The employment of the funds of the savings banks in safe and legitimate business and in manufacturing enterprises.

The organization of co-operative associations, through which the wealth created by the labor of their members shall be employed to increase the demand for such labor.

CONCLUSION.

In concluding this brief Essay on the most important questions of the day, the authors desire to call the attention of the working classes of the State to the importance of the great principle of co-operation or unity of efforts. This principle, one of the most valuable of the results of popular education and human freedom, is destined to work a grand revolution in the condition of the people of this free Republic. Though its power is but partially understood by those cultivating its influence, it already exercises a salutary prestige in shaping the policy of the governments of all nations. This power, when thoroughly understood, must become omnipotent among a free people.

Great principles are always slowly evolved. The germ of this principle of "unity of efforts," though so recently implanted that its leaflets are scarcely above the surface of events sufficiently to attract general attention, is already a mighty power in the hands of the oppressed masses of Europe.

What will such a power be unable to accomplish in behalf of the rights of labor when this germ shall have become a majestic tree, with its roots deeply set in the congenial soil of this Republic, consecrated to human Liberty, and its broad leafy branches spread wide in the atmosphere of personal, political and religious freedom !

The present influential position of the Mechanics' Institute of San Francisco—through the liberality of whose members this humble Essay and its competitors were called into existence—is a suggestive illustration of the benefits an entire State derives from the intelligent, honest co-operation of its working classes.

This Institution, through whose instrumentality is to-day presented the unique picture of the artisans of the Occident and the Orient submitting the products of their skill, taste and industry for the approval and edification of the people of California, is the result of honest, intelligent and persistent unity of effort on the part of a few far-seeing mechanics, who take an earnest interest in the cause of labor.

The manufacturing interests of the State are more indebted to these gentlemen for their present development than they are to the combined capital of our wealthy citizens.

The present exhibition of the capabilities of California as a manufacturing State and of the variety of its resources, which has attracted thousands of keen, shrewd observers whose influence, like "bread cast upon the waters, will return after many days," is due to the hearty and honest unity of effort of the members of the Mechanics' Institute of San Francisco.

These gentlemen are entitled to the gratitude of the people of the State and of their

Very humble and obedient servants,

WM. GOUVERNEUR MORRIS.

H. C. BENNETT.

8

CALIFORNIA.

PROSPECTUS.

AGRICULTURAL LANDS AND WATERS IN THE SAN JOAQUIN AND TULARE VALLEYS.

THE SAN JOAQUIN AND KING'S RIVER CANAL

AND

IRRIGATION COMPANY.

CAPITAL, - TEN MILLION DOLLARS,

100,000 SHARES OF $100 EACH.

SAN FRANCISCO:
A. L. BANCROFT AND COMPANY,
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CALIFORNIA.

PROSPECTUS.

Agricultural Lands and Waters in the San Joaquin and Tulare Valleys.

THE SAN JOAQUIN, KING'S RIVER CANAL AND IRRIGATION COMPANY.—CAPITAL, TEN MILLIONS DOLLARS, IN 100,000 SHARES OF $100 EACH.

This joint stock company was incorporated under the laws of the State of California on the 1st September, 1871.

The objects are, the construction of a system of canals in the great San Joaquin and Sacramento valleys, in the State of California, leading from the San Joaquin River, the King's River, and their tributaries, also from the Tulare Lake, the Kern and Buena Vista Lakes, and waters flowing thereinto, for the transportation of passengers and freight, and for the purpose of irrigation and water-power, and also the supplying of cities and towns in the State of California with fresh water for domestic purposes; also the buying and selling of lands and of real estate.

This company's charter is to exist for fifty years, and the principal place of business of said company is located in the city and county of San Francisco.

The primary objects of the company are the construction of main canals through Kern, Tulare, Fresno, Merced, Stanislaus, San Joaquin, Contra Costa and Alameda counties, leading from the above-mentioned lakes and rivers—

for irrigating portions of said counties, and for affording navigation the year round from Kern Lake to tide water near Antioch, a distance of 300 miles.

The sources of supply are from the Sierra Nevada mountains; the melting of the snow in the same during the spring and summer months keeps the rivers full up at a time when water is most required for the land.

The present canal from the San Joaquin River, constructed for nearly 40 miles, is 54 feet wide on the water surface and four feet deep, and discharges 360 cubic feet per second, or 350,000,000 of cubic yards per annum; 1,500 cubic yards of water, or a depth of 11½ inches, per acre, is sufficient to mature a grain crop; so that the duty of the present canal is 72,000 acres for a four months' crop, and over 200,000 acres for the year.

Tulare Lake at its lowest stage of water is rather over 200 feet above the sea level, and contains an area of 700 square miles, or nearly 500,000 acres, or 2,100,000,000 of square yards. Six feet of water drawn off its surface would suffice to irrigate 5,000,000 of acres of grain and cotton. The average depth of the lake is from 25 to 35 feet. There are no mountains or hills intervening along the course of the proposed main canal and the sea at Antioch.

Each cubic foot of water of continuous flow will irrigate five acres of land from three to four inches in depth every 24 hours. This watering will not be repeated under 40 days; so that the duty of one cubic foot of water of continuous flow is (5+40) 200 acres for a four months' crop.

The fall of the valley between the lake and tide water is about 14 inches to the mile; and from the foot-hills of the Mount Diablo range of mountains, which bound the west side of the valley, to the San Joaquin River, the transverse fall of the valley is from six to twenty feet to the mile; so that the drainage is naturally perfect, and therefore no swamps and malaria can be created by the proper irrigation of such lands.

The soil is of a rich loam along the west side of the valley, and a sandy rich loam on the east side. On the west side, wells have been sunk over 100 feet in depth through pure alluvial soil without any rock or gravel.

The surface of the ground generally along the west side of the valley is remarkably even, and unusually free from rivers and water courses, so that the cost of construction will be light.

The main canal from the lake to Antioch will have a discharge of 1,500 cubic feet per second, and capable of carrying a depth of 10 feet of water, with a width of 100 feet. The length of this canal will be 180 miles, and as each 10 miles is completed from the lake, the same can be used for irrigation.

The company has acquired all the necessary water rights in the several counties, as required by its charter, sufficient only to fill the main canals.

The company has also obtained from the principal landowners along the west side of the valley an agreement, binding up to the 1st October, 1873, for the right of way for its main canals.

The company's present canal is now irrigating some 16,000 acres of land, and within a year, if it be extended to the Orestimba Creek, could easily irrigate 50,000 acres of lands already under cultivation.

The company has already invested over $450,000 in acquiring its water-rights and privileges, in surveys, and in the construction of nearly 40 miles of main canal.

The company has leased under favorable terms for five years, from Messrs. Miller and Lux, a most eligible block of rich lands, containing some 6,000 acres (all of which is fenced), lying immediately along and commanded by the canal already constructed, and near to the San Joaquin River, which is navigable at the time of year when the crops are harvested.

The company's charge for water to the actual settler who has not given a subsidy is $1.50 per crop of grain, cotton, or grass, per acre, and $1.25 per crop, where a subsidy has been accepted.

The company is willing to co-operate with and assist each county, or any existing irrigation association of farmers and land-owners in each county, in said valley, in extending and perfecting their ditches, so as to make such works more generally useful, as soon as Congressional, or State, or county aid is given.

The rain-fall in this immense valley being of a tropical character, falling to the extent of only 12 to 15 inches, between the months of November and March only, renders irrigation more or less a necessity, especially as three or four in every seven droughts prevail to such an extent as to render in those years successful farming an utter impossibility.

In consequence of the failure of the latter rains, over 500,000 acres of grain, in Kern, Tulare, Fresno, Merced, Stanislaus and San Joaquin counties, have proved a failure, being an actual cash loss to the farmers of over $2,000,000.

The climate in the uplands is very healthy, and as there is no winter, or frost of any account, two crops of grain, or one crop of grain and one of cotton, or four to five crops of alfalfa or lucerne, are raised in the valley with the assistance of irrigation.

The canal already built, which is 54 feet wide and four feet deep, has cost $9,000 per mile; and the large canal from Tulare Lake to Antioch is estimated to cost from $16,000 to $30,000 per mile.

It is not intended to spend more than $7.50 per share, which is inclusive of the expenditure up to the 1st April, 1873, in the extension of the present canal to the Orestimba Creek, a further length of 33 miles, until Congressional or State aid is obtained. The cost per share up to the 1st May, 1873, is $4.50; so that the further assessment necessary, until Congressional aid is obtained, will be $3 per share. This will be expended solely in the extension of the present canal down the valley, through lands already settled and cultivated, and where the demand for water is great and assured.

The majority of the 100,000 shares of capital stock is held by some of the leading business men in the city of San Francisco. These parties, who started the enterprise in a season of terrible drought, the third consecutive one in this immense valley, are desirous of making the enterprise one of a general and popular character, and therefore they have agreed to allow every farmer, land-owner, store-keeper, or any other citizen, to subscribe for ten or more shares of 30,000 shares of the 100,000 shares of the capital stock, at actual cost per share up to date of subscription, *and the whole* of the 100,000 shares of the capital stock will then be equally assessed in carrying on the enterprise.

By this arrangement the public, and the settlers in the valley generally, can participate in the advantages, privileges and revenues from the lands and water, to be derived from the enterprise, and all the objections pertaining to a close corporation are done away.

In 1869 there was quite a large immigration to the San Joaquin Valley, but owing to the severe drought which prevailed during the three following years the majority of the settlers left the valley, and those who remained did not get back their seed.

In 1872, owing to the fine rain of that winter, over 300,000 tons of wheat, worth $12,000,000 to the farmers, have been exported from only a small portion of this valley, proving the value of the land with water on it, and also the fact that the value of one season's crops on the lands already settled on would suffice to build all the canals necessary to irrigate the valley, and to afford the settlers cheap transportation for their grain and produce.

In India, Egypt, Asia, Europe, and South America, canals and irrigation works have been carried on and fostered by the government. The farmers and settlers in the San Joaquin Valley are too poor to carry out the necessary canals and ditches by themselves, and require the co-operation of capitalists; and to obtain the necessary assistance from capitalists, some guarantee or aid from Congress is necessary to provide for the interest on the capital actually invested in the works, until the same begin to afford a revenue. For this purpose Congressional aid will be sought sufficient to pay a fair interest on the capital actually expended on the canals, until such works are in working order and able to realize a fair return over and above actual cost of maintenance.

No lands will be asked for, but the cash proceeds of the sales of the public lands in the several counties, to the extent required, with the right of way over the public lands of the United States yet unsold for the canals and feeders, and the right to store water in the mountains and foothills, and the right to use the waters of existing lakes and rivers to *the extent of the canal system only*, for irrigating the lands in the valley; and also the right to use such earth, stone, timber, and other materials on the public lands within the said counties as may be necessary for the construction, filling, and maintenance of the canals, feeders, and reservoirs.

The result of this co-operation on the part of capitalists, land-owners, farmers, and the Federal Government, will be the more rapid immigration into this immense valley, and the settlement of the public lands by an agricultural and permanent class of citizens.

The accompanying table shows the present population and area of land under cultivation in the several counties of the San Joaquin Valley in 1872.

COPIES OF THE ACTS UNDER WHICH THIS COMPANY IS INCORPORATED ARE AS FOLLOWS:

Act passed April 14, 1853. *No.* 87. *For the Incorporation of Companies for Manufacturing, Mining, Mercantile, Wharfing, Trade, Business, and Commercial Purposes.*

"Section 1. Corporations for manufacturing, mining, mechanical, mercantile, wharfing and docking, or chemical purposes, or for the purpose of engaging in any other species of trade, business, or commerce, foreign or domestic, may be formed according to the provisions of this Act.

"Section 2. Any three or more persons who may desire to form a company for any one or more of the purposes specified in the preceding section, may make, sign, and acknowledge, before some officer competent to take the acknowledgment of deeds, and file in the office of the County Clerk of the county in which the principal place of business of the company is intended to be located, and a certified copy thereof, under the hand of the clerk, and seal of the County Court of said county, in the office of the Secretary of State, a certificate in writing, in which shall be stated the corporate name of the company, the objects for which the company shall be formed, the amount of its capital stock, the time of its existence, not exceeding fifty years, the number of shares of which the stocks shall consist, the number of trustees and their names, who shall manage the affairs of the company for the first three months, and the names of the city, or town and county, in which the principal place of business of the company is to be located.

"Section 4. When the certificate shall have been filed, the persons who shall have signed and acknowledged the same, and their successors, shall be a body politic and corporate, in fact and in name, by the name stated in the certificate, and by their corporate name have succession for the period limited, and power—

"First, To sue and be sued in any court.

"Second, To make and use a common seal, and alter the same at pleasure.

"Third, To purchase, hold, sell, and convey such real and personal estate as the purposes of the corporation shall require.

"Sixth, To make by-laws, not inconsistent with the laws of this State, for the organization of the company, the management of its property, the regulation of its affairs, the transfer of its stock, and for carrying on all kinds of business within the objects and purposes of the company.

"Section 5. The corporate powers of the corporation shall be exercised by a board of not less than three trustees, who shall be stockholders of the company, and a majority of them citizens of the United States, and residents of this State, and who shall be annually elected by the stockholders at such time and place, and upon such notice, and in such mode, as shall be directed by the by-laws of the company; but all elections shall be by ballot, and each stockholder, either by person or by proxy, shall be entitled to as many votes as he owns shares of stock, and the persons receiving the greatest number of votes shall be trustees.

"Section 9. *The stock of the company shall be deemed personal estate*, and shall be transferable in such manner as shall be prescribed by the by-laws of the company.

"Section 12. Any stockholder may pledge his stock by a delivery of the certificates, or other evidence of his interest, but may nevertheless represent the same at all meetings, and vote accordingly as a stockholder.

"Section 20. Any company incorporated under this Act may, by complying with the provisions herein contained, increase or diminish its capital stock to any amount which may be deemed sufficient and proper for the purposes of the corporation."

"*Act approved May* 14*th*, 1862, 540; *to authorize the incorporation of Canal Companies, and the Construction of Canals, provides as follows:*

"Section 1. Corporations may be formed under the provision of an Act entitled an Act to provide for the formation of corporations for certain purposes, passed April 14th, 1853, and the several Acts amendatory thereof and supplemental thereto, for the following purposes: The construction of canals, for the transportation of passengers and freights, or for the purpose of irrigation, or water power, or for the conveyance of water for mining or manufacturing purposes, *or for all of such purposes.*

"Section 2. The *right* is hereby granted to any company, organized under the authority of this Act, to construct all works necessary to the objects of the company, to make all surveys necessary to the selection of the best site for the works, and of the lands required therefor, and to acquire all lands, waters not previously appropriated, and other property necessary to the proper construction, use, supply, maintenance, repairs, and improvements of the works, in the manner and by the mode of proceedings prescribed in an Act entitled an Act to provide for the incorporation of railroad companies, and the management of affairs thereof, passed May 20th, 1851.

"Section 3. Every company organized as aforesaid shall have *power, and the same is hereby granted,* to make rules and regulations for the management and preservation of their works, not inconsistent with the laws of this State, and for *the use and distribution of the waters,* and the navigation of the canals, and to establish, collect, and receive rates, water rents, or tolls, which shall be subject to regulation by the Board of Supervisors of the county or counties in which the work is situated, *but which shall not be reduced by the Supervisors so low as to yield to the stockholders less than one and one half per cent. per month upon the capital actually invested.*"

Act passed May 3, 1852. *No.* 171; *to provide for the Incorporation of Water Companies.*

"Section 1. The provisions of chapters one and five of the Act entitled 'An Act concerning Corporations,' passed April 22, 1850, shall extend to and apply to all associations already formed, or hereafter to be formed, under said Act, for the purpose of supplying any cities or towns in this State, or the inhabitants thereof, with pure and fresh water.

"Section 2. Any company incorporated for the purposes specified in the preceding section shall have the right to purchase, or take possession of, and use, and hold such lands and waters as may be required for the purposes of the company, lying without the limits of the city, intended to be supplied with water, upon making compensation therefor.

"Section 3. This Act shall not give to any company a right to supply any city with water unless it shall be previously authorized by an ordinance, or unless it be done in conformity with a contract entered into between the city and the company. Any contracts hereafter so made shall be valid, and binding in law, but shall not take from the city the right to regulate the rates for water, nor shall any exclusive right be granted, by contract or otherwise, for a term exceeding twenty years."

OFFICERS FOR 1873.

Board of Trustees: President, J. Mora Moss; Vice-President, John Bensley; Treasurer, Isaac Friedlander; William S. Chapman, Charles Webb Howard, Nicholas Luning, A. H. Rose, Charles Lux.

Consulting Engineer and Business Manager, R. M. Brereton, C. E.

General Superintendent and Chief Resident Engineer, M. L. Stangroom, C. E.

Secretary, G. W. Holmes; office, No. 418 California street, San Francisco.

CERTIFICATE OF INCORPORATION.

Know all men by these presents: That we, the undersigned, desiring to form a company for the purpose hereinafter set forth, under the statutes of the State of California in such case made and provided, do hereby certify:

First. That the corporate name of the said company shall be and is "The SAN JOAQUIN AND KING'S RIVER CANAL AND IRRIGATION COMPANY."

Secondly. That the objects for which said company shall be formed are: The construction of canals in the State of California, leading from the *San Joaquin River* and *King's River*, and their tributaries; also from *Tulare Lake*, and *streams* flowing thereinto, and other waters, for the transportation of passengers and freights, and for the purpose of irrigation and water power, and for the conveyance of water for mining and manufacturing purposes. Also, the supplying of cities and towns in the State of California, and the inhabitants of such cities and towns, with pure and fresh water. Also, the buying and selling of real estate.

Thirdly. The amount of capital stock shall be ten million dollars, which shall be divided into and consist of one hundred thousand shares, of the par value of one hundred dollars each.

Fourthly. Said company shall exist for fifty years.

Fifthly. There shall be seven Trustees of said company, to wit: Isaac Friedlander, Nicholas Luning, William S. Chapman, A. H. Rose, John Bensley, J. Mora Moss and Charles Webb Howard, who shall manage the concerns of the said company for the first three months of its existence.

Sixthly. The principal place of business of said company shall be located in the city and county of San Francisco.

In witness whereof, we have hereunto set our hands and seals this first day of September, 1871.

I. Friedlander, [L. S.]
Wm. S. Chapman, [L. S.]
A. H. Rose, [L. S.]
Nicholas Luning, [L. S.]
John Bensley, [L. S.]
J. Mora Moss, [L. S.]
Chas. Webb Howard, [L. S.]

State of California, }
City and County of San Francisco, } ss.

On the first day of September, A. D. one thousand eight hundred and seventy-one, before me, F. J. Thibault, a

Notary Public in and for said city and county, residing therein, duly commissioned and sworn, personally appeared Isaac Friedlander, William S. Chapman, A. H. Rose, Nicholas Luning, John Bensley, J. Mora Moss and Charles Webb Howard, whose names are subscribed to the annexed instrument as parties thereto, who are personally known to me to be the individuals described in and who executed the annexed instrument, and they severally, each for himself, duly acknowledged to me that they executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the city and county of San Francisco, the day and year last above written.

[SEAL.] F. J. THIBAULT,
Notary Public.

Filed in the office of the County Clerk of the city and county of San Francisco, September 1, 1871.

San Joaquin and King's River Canal and Irrigation Company.

Of the 100,000 shares of the capital stock, 30,000 shares are now open to the general public at actual cost price, which, up to May 1st, 1873, amounts to $\$4\frac{50}{100}$ per share. The further assessments for 1873, or until Congressional or State aid is obtained, will not exceed $3 per share on the whole 100,000 shares—this will suffice to extend the present canal from the 40th to the 73d mile by the first of March, 1874.

With this extension, 50,000 acres will be easily irrigated in 1874, yielding a return, at $1.25 per acre, of $62,500, or nearly nine per cent. on the total outlay; and in 1875, fully 100,000 acres can be watered.

Over 300,000 acres of grain on the west side of the valley, which promised a good crop up to the 1st March, 1873, have proved an almost entire failure, in consequence of the want of the spring rains. The farmers have lost over $1,000,000 in actual outlay on seed and cost of cultivation, and to have saved their crops, would have paid the company $5 per acre for the use of the water—and now offer one eighth of their crops for five years as a subsidy.

Parties wishing to subscribe for these thirty thousand (30,000) shares now offered to the public at actual cost, viz: $4.50 per share, can make application to the Secretary for the number required, up to the 31st July, 1873; and in the event of the subscription list amounting to more than the number of shares offered for sale, the Board will apportion to each subscriber his proportionate number of shares. On notice given by the Secretary of the allotment of shares to each party, the cash cost per share must be paid; and the further assessments will not exceed $3 per share for the year 1873.

PROPOSED AID FROM CONGRESS.

A Bill to encourage the Construction of Canals, for Irrigation and Navigation, in California.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled.

Sec. 1. That the San Joaquin and King's River Canal and Irrigation Company, a corporation incorporated under the laws of the State of California, for the construction of canals in said State for irrigation, transportation, and mill power and domestic purposes, is hereby authorized to locate, construct, and maintain its canals, with proper ditches and feeders, reservoirs and works, through and over the public lands of the United States within the counties of Kern, Tulare, Fresno, Merced, Stanislaus, San Joaquin, Contra Costa, and Alameda, in said State; and for that purpose the right of way is hereby granted to the said corporation through and over the said public lands in said counties, to the extent of three hundred feet on each side of the center line of said canals; and of one hundred feet on each side of the center line of the ditches and feeders; and also to the extent required for the reservoirs and works necessary and proper for constructing, filling, maintaining, and carrying on its canals, with their ditches and feeders, but not exceeding for this purpose within the tillable area of said counties, at the rate of one hundred acres for every ten miles in length of canal, with the right to take from the public lands, on or near the line of said canals, reservoirs, and other works, earth, stone, timber, and other material necessary for their proper construction, preservation and management.

SEC. 2. That the said corporation is authorized to appropriate and divert, for the purposes of its incorporation, so much as may be necessary of the waters of Tulare and Kern Lakes, and of such smaller lakes on or near the line of its canals or works as shall be available for the purposes thereof in said counties, and also for the same purposes to appropriate and divert so much as may be necessary of the waters of King's River and San Joaquin River, and their tributaries, and of such smaller streams on or near the line of its canals or works as shall be available for the purposes thereof in said counties. But such corporation shall not in any case divert or appropriate the waters of any lake or running stream to a greater extent than is required for its business from time to time, or so as to impair the navigation of such lake or running stream, or to diminish its natural flow to the prejudice of those entitled to the use of said water under the laws of the State of California, or the laws of the United States.

SEC. 3. That there is hereby further granted to said corporation in aid of the construction of three hundred miles of main canals in said counties, being not less than fifty feet wide and four feet deep, and so as to be available for the purposes of its incorporation, the cash proceeds of the sale of two of the even sections of the public lands of the United States adjacent to the odd sections now reserved to the Western Pacific and the Southern Pacific Railroads, for each mile in length of canal of said capacity constructed by the corporation, and for canals not less than sixty-five feet wide and six feet deep, this amount of aid in cash shall be double, and which shall be paid to said corporation as often as said canals shall have been completed in sections of not less than five miles in length: Provided, That every such section be approved of by the President of the Board of Engineers of the United States for the Pacific coast division; and on presenting his certificate of approval to the Secretary of the Interior only shall said payment for said portions or sections of said canals be authorized by the Secretary of the Interior.

Sec. 4. That the said corporation shall not charge to any actual settler now or hereafter located on the public lands of the United States, under the homestead or pre-emption laws, a higher rate for the use of the water necessary to mature a crop of grain, cotton, or fiber, than at the rate for each crop of one dollar and twenty-five cents per acre.

Sec. 5. That for every tree which said corporation shall cut down on the public lands of the United States, it shall plant yearly and maintain on the same lands one cedar or red spruce tree, or such other tree valuable for timber as shall be designated by the Secretary of the Interior; and it shall further plant and maintain trees useful for shade or timber, not more than one hundred feet apart, along the line of its main canals, and on each side thereof. For a willful violation of the provisions of this section the said corporation shall be liable under the laws of the United States against the waste or destruction of timber on the public lands.

Sec. 6. That the acceptance of the terms, conditions, and provisions of this Act by the said corporation shall be signified in writing, signed by the President and Vice-President of said corporation, attested by its seal. Such acceptance shall be made within one year after the passage of this Act, and not afterward, and, with the certified maps of route of canals, shall be deposited in the office of the Secretary of the Interior.

Sec. 7. That the tolls, rates, charges, and regulations of the said corporation for each class of service by it rendered in respect of irrigation or of any other purpose of its incorporation, shall be, as far as practicable, uniform as to each class respectively, and without discrimination in favor of or against any person or persons whomsoever. All such tolls, rates, charges, and regulations, and the management generally by said corporation of its works and waters, shall be at all times, except as herein provided, subject to be regulated by the State of California by existing or future laws.

Sec. 8. That all property and interests of said corporation shall be subject to taxation by the State of California, in such manner as now is or as hereafter shall be provided by her constitution and laws.

Compliments of WM. H. MARTIN, General Agent California Immigrant Union.

ALL ABOUT

15—3

CALIFORNIA

AND

THE INDUCEMENTS TO SETTLE HERE.

[FOR GRATUITOUS CIRCULATION.]

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Office, 534 California Street.

[Letter, No, 11.]

SAN FRANCISCO, September, 1873.

In issuing our Sixth English edition of "All about California," I desire to preface it with a general letter to our friends in the Eastern States and Europe, answering, as nearly as possible, most of their special inquiries in reference to the inducements offered by California to the intending immigrant. We are daily in receipt of large numbers of letters, many of which ask from five to thirty questions, and all of which are answered by the documents we send in return, such as "All about California," "Resources of California," "State Surveyor-General's Report," "Report of the State Agricultural Society," and other State Reports, local and county newspapers, etc. Our time is occupied in a great measure in giving information, directions, and letters of introduction (to our correspondents and friends through the State) to newcomers, so that it is impossible to answer all the letters we receive, except by sending documents and a postal card.

The United States Land Laws are the same all over the United States, so those of California do not differ from, but are precisely as liberal as those of, any other State or Territory in which the Government owns land. We have also some laws passed by the State of California regulating the disposition of such lands as were granted to the State by the National Government. Most of these State Lands have however been disposed of, as they granted long time for payment at low interest, and thus speculators found it profitable to purchase them in anticipation of the actual wants of settlers. Many of these lands however are for sale by the buyers at $2.50 per acre payable half cash, and the balance on an indefinite credit at ten per cent. per annum interest.

In the *Resources of California* you will find general and sufficient statements of the United States Land Laws which apply to California. They may be briefly summed up as follows: Where Government has aided the construction of railroads by giving them half of its land, checker-board fashion, for ten or twenty miles on each side of the line, government land is valued at $2.50 per acre. Everywhere else, except where mining claims exist, it is valued at $1.25 per acre. Where surveyed land has been "offered" for sale for several years without buyers, such "offered lands" may be purchased in large tracts for $1.25 per acre. Most of the best lands of this character, considered with reference to their nearness to market, etc., have been sold. The bulk of the lands, however, have been so "offered," and are open to actual settlers only under the "Homestead" and "Pre-emption" laws. Under these laws within a railroad reservation a settler can obtain 80 acres of land; or if he had 80 acres before, may obtain 80 acres additional, making 160 acres altogether. Everywhere else he can obtain 160 acres of vacant government land. Under the Pre-emption law he obtains his land by actually settling on it, and paying for it $1.25 per acre 18 months after settlement, and obtains his patent Under the Homestead law he pays the Land Office $22 when making his settlement, lives on it five years, then proves the fact by his neighbors, and pays $10 additional and obtains his patent, which makes him full owner.

Any American citizen, 21 years of age or over, can obtain government lands on these terms. Any foreigner of the same age can do the same if he has been naturalized, or has taken the first step to do so; that is, has declared his intention to become a citizen of the United States, before the clerk of some court of record. This can be done the first day after landing here, and costs not over $2.

The papers and documents we send you contain a variety of information as to the chances for new comers in a number of the counties of this State. If read carefully you will find an answer to almost any question you may desire to ask. But at all events they contain enough to show any sensible man, who understands farming, that there is no risk for an enterprising man who is industrious and economical, in coming here, and that farmers of that kind can find plenty of room and usually do well.

A farmer should come to California in time to select his lands and be ready to plough with the first rains in November or December, if he intends planting grain. Cotton, jute, flax, alfalfa and other crops are not planted until the months of March, April, and May. Those who cannot get ready to come here until after that time, would still do well to arrive here during the summer, as they could engage in harvesting, and thereby gain an insight into our system of farming; they would, also, have plenty of time to examine the State and make a suitable location, and as California appears in its most unattractive form, and at great disadvantage in the summer time, they would be less liable to make a mistake. He need bring no outfit except his clothes. Horses and farm implements can be purchased at reasonable rates. Comfortable board can be had in the cities at from one dollar and twenty-five cents to two dollars per day for families, while a single man, by taking advantage of his circumstances, may do even better. Clothing is higher than in the

Eastern States; living about the same, while wages rule higher. Lumber is worth $18.00 to $35.00 per thousand in San Francisco or Stockton, from which places it can be shipped to any desired point.

A great many persons write to us to obtain special rates for passengers and freights, chartering box cars, engaging second class and emigrant cars for a colony, etc., etc., all of which information can be obtained and arrangements made at the nearest depot to their homes. I refer you particularly to the following gentlemen, who have uniformly acted in connection with our Union, in forwarding the interests of the intending immigrant:

J. N. Abbott, Esq., Gen. Passenger Agent, Erie Railway, New York; J. A. Burch, Esq., General Eastern Passenger Agent, Lake Shore & Michigan Southern Railway, Buffalo, N. Y.; T. L. Kimball, Esq., Gen. Passenger Agent, Union Pacific Railway, Omaha; France Chandler, Esq., Gen. Ticket Agent, North Missouri Railway, St. Louis; Beverly R. Keim, Esq., Gen. Ticket Agent, Kansas Pacific Railway, Kansas City, Missouri; E. St. John, Esq., Gen. Ticket Agent, Chicago, Rock Island & Pacific Railway, Chicago; F. Knowland, Esq., Gen. Agent Union Pacific and Central Pacific Railway, New York; D. M. Boyd, Jr., Esq., Gen. Passenger Agent, Pennsylvania Central R. R., at Philadelphia; L. M Cole, Esq., Gen. Ticket Agent, Baltimore & Ohio Railway, Baltimore.

Information in reference to all the railroad lands in California can be obtained by addressing B. B. Redding, Esq., Land Commissioner of the Central Pacific R. R. Company, at Sacramento City, Cal.

Government land, at Government prices, can readily be obtained at any of the Land Offices.

Valuable information, not contained herein, can be obtained in our pamphlet "All about California," and in the *Resources of California*, published by J. P. H. Wentworth, Esq., of San Francisco, *San Francisco Journal of Commerce*, *Pacific Rural Press*, "California Horticulturist, Charles Nordhoff's "California" "Hittell's Resources of California," (A. Roman & Co., San Francisco).

We have our General Eastern Agent, Mr. Louis de'Ronceray, located at No. 5, Post Office Avenue, Baltimore, Maryland, from whom a limited supply of documents can always be obtained. In order to cover the expense of *Mail* and *Express*, we must request our friends to always inclose, at least, *fifty cents* worth of stamps to our Agent in Baltimore, or to this office.

For those who desire more complete information concerning any special section of the State, we give below a list of the leading newspapers published in the different counties, and would advise parties to subscribe for one or more of them:

Bulletin, daily and weekly; Call, daily; Chronicle, daily; Alta, daily and weekly; Examiner, daily and weekly; Demokrat (German), daily; Abend Post (German), daily, San Francisco. Transcript, daily, Oakland. Ledger, weekly, Jackson, Amador county. Enterprise, weekly, Chico, Butte county. Record, weekly, Oroville, Butte county. Chronicle, weekly, Mokelumne Hill, Calaveras county. Sun, weekly, Colusa. Ledger, weekly, Antioch; Gazette, weekly, Pacheco, Contra Costa county. Mountain Democrat, weekly, Placerville, El Dorado county. Expositor, weekly; Millerton, Fresno county. Northern Independent, weekly; Eureka, Humboldt county. Courier, weekly, Bakersfield, Kern county. Northern Record, weekly, Orleans, Klamath county. Clear Lake Courier, weekly, Lakeport; Bulletin, weekly, Lower Lake, Lake county. News, daily and weekly, Los Angeles. Journal, weekly, San Rafael, Marin county. Gazette, weekly, Mariposa. Independent Dispatch, weekly, Mendocino City; Democrat, weekly, Ukiah City, Mendocino county. San Joaquin Valley Argus, weekly, Snelling, Merced county. Argus, weekly, Castroville; Democrat, weekly, Monterey; Republican, weekly, Monterey; Standard, weekly, Salinas, Monterey county. Register, weekly, Napa; Reporter, weekly, Napa, Napa county. Union, daily, Grass Valley, Nevada county. Herald, weekly, Auburn, Placer county. Telegraph, weekly, Folsom; Record, daily, Sacramento; Union, daily and weekly, Sacramento, Sacramento county. Guardian, weekly, San Bernardino. Union, weekly, San Diego. Independent, daily and weekly, Stockton, San Joaquin county. Tribune, weekly, San Luis Obispo. Gazette, weekly, Redwood City, San Mateo county. Press, weekly, Santa Barbara. Advocate, weekly, Gilroy; Enterprise, weekly, Mayfield, Santa Clara county. Stanislaus News, weekly, Modesto. Mercury, weekly, San Jose; Index, weekly, Santa Clara county. Sentinel, weekly, Santa Cruz; Pajaronian, weekly, Watsonville, Santa Cruz county. Courier, weekly, Shasta. Democrat, weekly, Downieville, Sierra county. Journal, weekly, Yreka, Siskiyou county. Republican, weekly, Suisun; Chronicle, daily and weekly, Vallejo, Solano county. Russian River Flag, weekly, Healdsburg; Journal and Argus, weekly, Petaluma; Democrat, weekly, Santa Rosa, Sonoma county. Banner, weekly, Yuba City, Sutter county. Independent, weekly, Red Bluff, Tehama county. Delta, weekly, Visalia, Tulare county. Union Democrat, weekly, Sonora, Tuolumne county. Democrat, weekly, Woodland, Yolo county. Appeal, daily and weekly, Marysville, Yuba county.

Parties arriving in California, by applying at our office, will be supplied with all necessary information in reference to lands, transportation, etc., and also with letters of introduction to parties in the interior, who will advise and assist them, gratuitously, in getting well and economically settled.

Any points not covered by this letter will be cheerfully answered, by applying either personally, or by letter, at our office.

Very Respectfully,
WILLIAM H. MARTIN,
General Agent California Immigrant Union,
Lock Box 1550. 534 California St., San Francisco, Cal.

FACTS ABOUT CALIFORNIA.

The following letter from Charles S. Capp, Esq., to the Hon. Ed. Young, Chief of the Bureau of Statistics, U. S. Treasury Department, prepared with great care, for his Special Report on Immigration, is of such great value that we insert it entire:

To the Hon. E. Young,
Bureau of Statistics, Washington, D. C.—
San Francisco, December 9, 1870.

Dear Sir : Your letter, accompanied by information concerning California lands, was duly received. I noticed that most of the prices for farming lands quoted are those in the immediate vicinity of the county seats and oldest settled and best improved central districts. By going a little distance from the present centers of population, lands can be obtained at more moderate prices and frequently from the Government at usual rates.

When the quantity of land that is inclosed or uninclosed is considered, it should be borne in mind that what is here called "no fence law," extends over a considerable portion of the State, viz.: the counties of Marin, Stanislaus, San Joaquin, Yolo, and portions of Sacramento, Santa Barbara, Los Angeles, and Merced. (See California Statutes, 1869–70, page 410). The principle of this law is that a landowner is entitled to the safe enjoyment of his land without having to guard it by fences, and that the owner of live stock is bound to see that they do not trespass, and is responsible for damages they do. Where land is cheap and timber scarce and dear, the fencing often costs more than the land, and this law was intended to facilitate settlement by poor men by obviating the necessity for this often unproductive expenditure. This law is being extended in its operations at every session of the Legislature, as fast as the purely agricultural interest becomes decidedly stronger than the mere stock-raising interest. Its fairness and economy commenced it. Many miles of our best lands are thus uninclosed, though in a high state of cultivation.

As to improvements upon lands, should also be borne in mind that many improvements, such as warm barns and sheds for cattle, that are indispensable where snowfalls and severe winters prevail, and where it rains during harvest season and afterward may be expected, are here to a great extent unnecessary. This is the case in all the large valleys, and everywhere, except on the northern coast and in the mountain regions. Cattle and sheep need and receive little or no shelter, but find their own living all the year round. Only those that work are housed and fed. Straw and hay are stacked in the field and cattle help themselves during the latter end of the Autumn, until the first rains fall, when there is a new growth of grass, and as vegetation proceeds actively all through the winter, they find an abundance of feed.

As to buildings it should also be borne in mind that California, except in the mountains where altitude is equivalent to a more northern latitude, the winter is a mere rainy season, with numerous intervals of fine pleasant weather. Consequently, Californians are able to and do spend a greater portion of the time in the open air than the people of almost any other State. They, therefore, until in prosperous circumstances, do not build such fine houses to keep out cold as are absolutely necessary in the Northern and Eastern States. Cheaper ones answer every purpose and afford quite as much comfort as more expensive ones. This advantage of our climate operates greatly in favor of men of limited means, as a larger proportion of their capital is available from the first for the purchase of teams, seeds, agricultural implements, live stock, and family requirements, and they are thus able to get a new piece of land into a productive condition more cheaply than is the case elsewhere.

In our large valleys and all except the highest portions of the State, snow seldom falls, or if it does, seldom lies twenty-four hours at a time, and ice very seldom forms. Heavy frosts are also of rare occurrence. Consequently less fuel is necessary for comfort, and timber is not so indispensable upon the farm. Much timber is wantonly destroyed in clearing land for grain culture, even in districts where it is comparatively scarce. Wire fencing is extensively used in districts where timber is so abundant. It is not very expensive, lasts well, and its place may be supplied before it ceases to be useful by live fences or hedges, which grow finely wherever planted. The cottonwood, willow, locust, and a variety of other trees suitable for fuel, shade, and hardwood, are rapid growers where planted under favorable conditions, so that even where no timber exists the settler need not long be without it. The mountains and foot-hills which bound the valleys, usually furnish an abundant supply of fuel for the settlers at very little more than the cost of cutting and hauling, and timber is found along all the water-courses and river bottoms.

Owing to the absence of rain during harvest and for two months later, no haste is necessary in securing crops of grain when ripe, and no need of shelter for them when cut. Grain is often allowed to stand for weeks after it is ripe, until the harvester and steam-thresher can be secured to cut it. When cut it is threshed and sacked at once, and then piled up in the field without shelter in perfect security so far as the weather is concerned, and gradually hauled to the nearest railroad or steamboat landing where it is stored until the market price suits the farmer. Until disposed of, it often serves as the basis of a loan with which the operations of the succeeding year are extended, improvements made, etc. There is usually no trouble either in disposing of the crop at San Francisco prices, less freight and commission, or procuring money upon it if prices at the harvest time are considered to justify the farmer in holding for a rise. The main thing is to have the hauling to the point of delivery completed before the rains make the roads heavy. For these reasons new-comers in California are able to dispense with many of the "improvements" upon farms that are absolutely necessary to success elsewhere, whether they lease or purchase lands.

As to prices: Lands enhance in value the moment they are occupied. Even without occupation, what was Government land yesterday, procurable at $1.25 per acre, is worth double that price or more the moment it passes private hands. That is to say, this increase in value is insisted upon by the owners without much regard to difference in quality between what is taken and what is left. Settlement actually increases the value of land in any vicinity, because men usually prefer to have neighbors for themselves and families. Yet, other lands a little farther off from the nearest town may be fully equal in quality, and settlement will enhance their market and quotable value in the same manner, and the development of the country subsequently by the construction of railroads, etc., may make the more distant lands the most valuable. The successful introduction of some new culture, such as the grape, the mulberry, or the commencement of a manufacture for which facilities exist, will have the same effect. And thus in California, as in other new States, the men who will accomplish most and succeed best are those whose intelligence enables them to discover for themselves the peculiar advantages of a district, which escape the attention of others, and who have the enterprise to secure and develop such locations. Any ordinary farmer can see that a piece of land, the soil of which is deep and rich, and which is level, will make a farm for wheat, oats, barley, or common crops. But the foot-hill region, where the land is rolling and sometimes steep, is found to be capable of producing a variety of fruits and other products that yield a far larger and more certain return than any land used merely for grain-raising. I only repeat the opinion of many of the most intelligent men in the State when I say that we may expect that before many years the foot-hill region of the Sierra Nevada, extending from the plains of the large valleys across the gold-bearing belt and up to the high pine covered districts, where the climate becomes severe, will be occupied by a dense and prosperous population, and prove quite as productive as the level lands which now contain the bulk of our agricultural population. Already many of the finest orchards and vineyards are located in this region. The wines produced there are of a superior quality, and the fruits unsurpassed. The silk culture has been successfully carried on, and every year demonstrates more fully the varied capacity and great value of these lands.

Cattle-raisers frequently depreciate the value of the Government lands in the vicinity in order to discourage others from settling near them, so that their stock may enjoy free range over the vacant land around them. Intelligent men are not thus deceived, but able to judge for themselves and form their own opinions. Cultivation frequently changes entirely the appearance of a soil. While cultivated land is covered with green and luxuriant vegetation, the same soil outside of the inclosure, which has not been disturbed, presents a dry and sterile appearance which is very uninviting. What has been done by one settler may be done by others. The dry appearance of our hills and valleys in the Fall is discouraging to new comers from States where the rainfall is greater and distributed more evenly through the year. But if water for drinking is supplied to cattle in such localities they are found to be fat and thriving, and the dry grass, when examined, is found to be perfectly cured hay, retaining all its natural strength and nourishment, and often rich in seed, and it continues in this condition until rain falls and washes out its nutritive properties and causes it to rot. In all our large valleys water is found close to the surface nearly everywhere, and is readily procured by wells, and the regular winds afford the power necessary for pumping all that is required for household purposes, watering stock, and garden irrigation. Artesian wells costing about $500 each, are also dug without difficulty in many of the valleys that are destitute of running streams in the Fall, and one of these will usually supply all the water that is required upon a farm, the flow being constant and plentiful without pumping machinery. Everywhere in the foot-hill region and on the plains below, facilities exist for bringing in water for irrigation from the never-failing streams supplied by the mountain snows. The ditches originally built to supply the water for mining operations are now used to a considerable extent for the purpose of irrigation, and will be carried down lower as the demand increases. But every year's experience proves that though irrigation for some purposes will greatly increase the productive capacity of land, thorough cultivation often renders it unnecessary; and again, for many crops for which it was formerly supposed beneficial it is in fact unnecessary if the seed is sowed in time to obtain the full benefit of all the natural rain-fall. Grapes and other fruits raised without irrigation are superior in flavor to those supplied artificially with water. Nevertheless, an abundance of opportunities exist for the employment of capital in the diversion of water from its deep natural channels to the surface of districts not well supplied, and its use in irrigation and for manufacturing purposes. The foot-hill region which is peculiarly adapted to fruit-growing, vineyards, etc., comprises portions of the counties of Shasta, Plumas, Butte, Sierra, Yuba, Nevada, Placer, El Dorado, Sacramento, Amador, Calaveras, Tuolumne, Merced, Mariposa, Fresno, Tulare, and Kern. Lands of similar quality are found in some of the other counties. Good wagon-roads extend through most of this region to the numerous mining towns in the higher districts, and a system of narrow-gauge railroads is now being discussed which will probably extend through these districts, and thus facilitate the transport of agricultural products, as well as the rich ores which the mines afford, and the valuable timber of the high Sierras.

Improved farms are not rented to the same extent in California as elsewhere. Most of the settlers occupy them as their homesteads, and have no other lands. Comparatively few of the large landholders lease their land for farming, and few or none improve them expressly for the occupation of tenants. Where land is leased, the farming is mostly mere grain and stock-raising, requiring few or no expensive improvements by the tenant, or for his accommodation. Again, where private lands are yet so cheap, and Government lands are attainable at Government prices, and the railroad system in course of construction promises to render them, in a few years, as accessible and valuable as the central lands that are now high, the necessity for renting land and the inducement to do so are less than elsewhere. The great majority of new comers soon see this, and prefer to purchase land of their own. Leases, however, are frequently made with the privilege of purchase, at a fixed price not greatly in advance of existing rates. This privilege is usually availed of, as the tenant sees that his own settlement enhances the value, and prefers to enjoy the full benefit of his own labor. These leases are sometimes advisable where speculation, in view of contemplated railroads and similar improvements, has not already too greatly enhanced their market value. The rent of land usually represents about ten per cent. of the estimated value of the land; thus in Monterey good wheat land that sells at from $25 to $35 per acre rents at $2.50 to $3 50 per annum.

Mexican grants cover a large part of the best lands in the southern portion of the State. So long as the titles to these grants are in dispute, their boundaries remain undefined. Consequently settlers are often afraid to take up land in their vicinity, though they believe it to belong to the Government, because it is unsurveyed, and for fear that the grant when located by surveyors may be "floated" over their improvements. Recent legislation by Congress was intended to compel the immediate survey of such unlocated grants. Certain defects have rendered it partially inoperative. Amendments will probably be made to remedy these defects and then the segregation and settlement of the adjoining Government lands will proceed safely and rapidly. The final confirmation and survey of these grants is usually immediately followed by their subdivision. This process soon makes openings for agriculturists; the raising of stock becomes unprofitable as soon as the range is restricted, and soon the agricultural element prevails over the stock-raising. The majority of the Spanish and Mexican grants are already confirmed or rejected. When finally confirmed and located, the titles are perfect and desirable. Fine openings for capital exist in the purchase of these large ranchos from the owners and their sale in subdivisions to farmers and smaller stock-raisers.

In conclusion, California at the present time does not present any brilliant inducements to the immigration of men having no capital but their labor, and who are content to remain mere laborers. Industrious, enterprising men, who understand farming, or almost any other useful occupation or mechanical trade, usually find employment without much difficulty, at higher rates than elsewhere, and in a few years lay up capital sufficient to commence business upon a small scale on their own account.

Women, for domestic service, particularly in the country, are in unlimited demand at high wages, from $25 to $40 per month, according to capacity, and they are always well and kindly treated, and usually marry in a very short time, greatly to the discontent of their employers. But for the practical farmer, possessed of means sufficient to enable him to purchase or lease land, improved or unimproved, or to locate Government land under the homestead or preemption law and commence farming on a small scale, no State or Territory offers superior inducements. He can commence operations perfectly assured that a few years spent as industriously as is necessary in agriculture elsewhere, will here surround him with all the necessaries and many of the luxuries of life, make him secure from want, and the owner of a farm, orchard, and garden that will afford himself and family a competency, and a comfortable inheritance to his heirs. This is plain when we consider the great variety of products and fruits that can be successfully and profitably raised here, that are either precarious and therefore unprofitable, or cannot be raised at all where the climate is more severe. Most of these new cultures are no longer experimental, but are firmly established as profitable and certain. Orchards, vineyards, mulberry plantations, and cocooneries are everywhere being planted, with a certainty that they will thrive and yield a handsome profit, rewarding the husbandman abundantly for his labor. The success attendant upon all these experiments, upon a large or a small scale, has long since been known to all intelligent men. California is resorted to by agents of French and Italian silk manufacturers to purchase at high prices our silkworm eggs (that are healthy and free from the diseases that have threatened to impair this important industry in Europe), as well as all the raw silk we may produce. Our wines and brandies are already commencing to rank with the best produced abroad. Our fruits both on account of their superior quality and the early date at which they mature, are in request in Eastern markets, even at the high prices which the expensive transportation necessitates. Our wheat is superior in quality and its capacity to bear transportation, by sea or land, and storage for an indefinite period without damage, to that which is raised in almost any other country, and rules accordingly in the market, and can be raised at a cost which enables it to bear the expense of transportation to the most distant ports.

All the productions of the temperate zone, nearly all of the semitropical fruits and plants that elsewhere are mere hot-house exotics, here thrive and yield abundantly. Even the man of moderate means can therefore surround himself and family with luxuries, and ornamental as well as useful plants, trees, and shrubbery that elsewhere entail heavy expense upon their owners and stamp them as men of wealth. The cottages of men of moderate means in our smaller towns, not only in the valleys, but in the mining regions also, are often surrounded by a patch of garden and orchard, in which will be found not only the ordinary, familiar plants of an old Eastern homestead, but the more delicate geraniums, oleanders, fuchias, heliotropes, verbenas, lilies, bulbous plants, cactus, roses, and a hundred others growing, budding, and blooming in the open air all the year round. In addition to all the ordinary fruits, such as apples, peaches, pears, quinces, plums, and small fruits and berries, may also be found the olive, orange, lime, citron, figs of several kinds, pomegranate, English walnut, mulberry, filbert, tobacco, cotton, sorghum, ramie; and if the owner is disposed to experiment, the list might be extended indefinitely. Thus not only does California offer to the agriculturist a profitable, but also a pleasant, and attractive home, in which a family may be reared surrounded by all the influences which will render them contented, healthy, intelligent, and patriotic.

The California Immigrant Union, of San Francisco, is an association formed to promote immigration to California. Its officers have published several pamphlets, and other documents, containing reliable information concerning the resources and attractions of the State, which are supplied gratuitously to all who apply in person or by letter, and have been placed in many of the Eastern and European libraries and reading-rooms. They also endeavor to facilitate the travel and settlement of new comers and do not confine their operaations to any particular section of their State. No charge is made for any services rendered, and those desiring information concerning California may address the company by letter or otherwise.

CHAS. S. CAPP,
Manager California Immigrant Union.

CALIFORNIA.

Progress of the State since 1852—What Twenty Years' Growth Has Accomplished—Development of Our Material Interests and Resources—Our Mining, Manufacturing, and Agricultural Growth—What we Produce in Minerals, Cereals, Wool, Wine, and Manufactured Goods.

The history of California may be compared to that of many of her fortunate sons, who, springing from ranks of obscurity, have successfully climbed the steeps of toil to wealth and fame. Previous to 1848, she was scarcely known: but the sudden discovery of gold sent her name ringing among the nations, and brought hither an irruption of adventurers from almost every country on earth, and gave her, in a twinkling, the most cosmopolitan of people. History can show few greater and more rapid changes in the character and condition of a country than are furnished in the case of California.

Those who saw these shores in 1852 will scarcely recognize the localities as they appear to-day. There were no populous and well-built cities; no railroads, with their flying trains filled with passengers or loaded with the staples of commerce; no vast fields of waving grain; no commerce; no telegraphs, nor manufactures.

Mining and storekeeping were the principal occupations, save in the south, which was sparcely settled by Spanish Americans. No common schools were then to be found, or at least none worthy of the name, and nothing like the present magnificent system was even dreamed of. We imported every thing from Europe and the East—even flour and lumber. In 1853 the number of school children in this city was just 2,000; the attendance 700, and we had but seven schools. Throughout the State, the same year, the number of schools was 51, of teachers, 57, the number of children 10,953, and the average attendance 4,193—not quite one-fourth that of San Francisco alone during the present year. The same year the population of this city only 42,000, and that of the State 300,000. Sacramento had only 393 brick and 1,836 frame houses. But we were beginning to have a trade, and that year sent flour and lumber to Australia. Of flour, however, there were but 788 barrels, to balance which we imported 299,597 barrels—199,143 two-hundred-pound sacks of flour. Out of our total population, 125,000 were employed in mining, the estimated product being $70,000,000 worth of gold, of which we exported $54,908,000. We were just beginning then to have a farming population. The total valuation of all the property in San Francisco then was $30,000,000, as opposed to nearly $300,000,000 now, showing an increase in the wealth of the city of nearly a thousand per cent.

From the time of the discovery of gold up to the year 1854, may be called the first epoch in the history of California. A population of three hundred thousand active and adventurous men had flocked to the State and were laying broad the foundation for the seat of future empire. Other branches of industry and business were receiving attention; the placer diggings were being exhausted, and quartz mining was being resorted to with most unsatisfactory results.

In 1853, for example, there were eighteen quartz mining companies in the State with an aggregate capital of $1,007,000, and the total product of bullion was but $1,071,000 for the year from that source. In that year, however, our imports and exports began to be equalized, and we were raising most of our own necessaries of life, as is shown by the fact that the imports exceeded the exports by only $1,077,000. Several new manufactures were started about this time—paper-making, which has not progressed, and beer and pork-packing which has. This year the State contained 436,871 cattle, 128,315 sheep, 197,688 swine, and 78,651 horses. The exports of merchandise, which were about $1,000,000 in 1848, and $1,500,000 in 1852, had now increased three-fold, being $4,877,519, divided nearly equally between New York, Australia, Mexico, and the

Sandwich Islands. They included flour, copper, oil, and whalebone.

In the next year the system of tunneling, which had been for some time in use for mining, had a remarkable development in the construction of many large and expensive works of this description.

Then came an era of stagnation and depression. The tide of immigration measurably diminished, and almost all business interests suffered. The operations of Harry Meiggs was followed by the heavy bank failures of 1855, and the prevalence of crime and lawlessness culminated in the Vigilance Committee of 1856. For some years the State made but little appreciable progress. Still much was being done in properly directing the energies of the people, and in shaping the course of their efforts to the fuller development of our resources. More attention was bestowed upon agriculture; large quantities of land were put under cultivation, and the people, in 1857, began to export small quantities of wheat and flour. About the same time the wine interests of the State received attention and began to be developed.

In the year 1858, the Frazer River excitement carried off a large number of our population, and property and real estate in San Francisco had depreciated to a very low figure. At this time many speculators laid the foundation of colossal fortunes by investing in city real estate, and upon the collapse of the Frazer River bubble, thousands of disappointed gold-seekers returned to the State, and with them other thousands from abroad, who had started for the new and mythical El Dorado of the North, but fell back upon solid California when that hope failed them. The Washoe mines were also discovered about this time, and the State entered upon a new era of progress and prosperity, and has since steadily and satisfactorily pursued her way to wealth and greatness. By 1862 the population of the city had increased to 65,000, and that of the State to 400,000.

We were exporting $10,565,294 worth of goods other than treasure. Since then her population has increased from 400,000 to upwards of 650,000, and that of San Francisco from 65,000, to about 180,000; while Sacramento, Oakland San Jose and many of the interior cities and towns may be said to have grown in quite equal proportions.

The State then began to attract attention abroad from the magnitude of its wheat-growing interests. In 1854 the breadth of land under that cereal was calculated at 135,024 acres, producing 3,439-533 bushels, or 2,063,719 centals. Since then, what a change! The vast valleys of the San Joaquin and Sacramento, with their millions on millions of acres of fertile land, have been and are being rapidly transformed by the touch of the plowshare, the showers of winter and spring, and the genial heat of our summers, into immense golden fields of waving grain. Of course no long time elapsed before our farmers found that they must sek otheer than local markets for their grain, and in 1855–56 they began to export, but only got rid in tnis way of 8,815 centals. This, however, was a beginning; and this most important of our exports has kept on steadily increasing from year to year, save when after eighteen months of great drought, it amounted to only 123 centals in 1858–59. In the harvest year of 1862–63 our exports reached over one million centals, and our united exports of wheat and flour to nearly a million and a half of centals. Save, in 1864–65 the export increased all the time to 1869–70, when the equivalent of 5,802,487 centals of wheat and flour left our shores. This was the largest shipment we had ever made. For this year we may say that the extreme estimate of the wheat crop in California equals the enormous quantity of 20,000,000 centals, while the lowest is still high enough, being over 12,000,000 centals. That is from six to ten times the product of 1854, and more than a thousand times the export of 1855–56.

In some of the counties, Sonoma, for instance, viniculture has been pushing out the cultivation of this great cereal, and this brings us to a consideration of our progress in wine growing. Although grapes have been grown and wine has been made in California for over a century, it wasnot until recently that the idea entered the minds of our grape-growers that good native wines would rapidly drive imported ones from the market. In 1857 it was that the first wines were exported from this city—a small quantity enougt, sooth to say—six cask and six hundred cases. Next year 1,000 cases were exported. In 1860 wine to the value of $25,848 was exported, principally to New York. This was nearly doubled on the succeeding year, and the following one the equivalent of 5,000 casks were exported.

In 1866, 7,347 were exported. This has increased in 1870 to 432,186 gallons and 6,668 cases of wine, chiefly by sea, to New York, and 1,367,451 pounds by rail. In 1871 the quantity exported was about the same, though the quantity made was exceedingly large. Great quantities of wine were made throughout the State last year. Already 550,000 gallons have been exported. Our wines are gradually making for themselves a name in the Eastern States, and there is no doubt but that in the not distant future our State will become to America, China, Japan, and the Orient what France and the Spanish peninsula have been hitherto to Europe and the world.

In the matter of wool-growing we have made equally rapid strides. Although so long in the occupation of a nearly exclusively pastoral people, California absolutely grew no wool till the advent of Americas, and then for several years a quantity almost too insignificant to be taken into notice. In 1850 the total productions of wool throughout the State did not exceed 5,530 pounds; now it has reached 24,000,000, increasing in little more than twenty years nearly five thousand fold. Between 1850 and 1855 our agriculturists had already begun to find out that California was peculiarly suited to sheep, and in the latter year 360,000 pounds were produced, seventy times the amount of 1850. From 1855 to 1856—in five years—the productions increased ten-fold, for the first two years doubling itself each year. Since then it has increased more slowly, but the productions this year will be seven-fold that of twelve years ago. In a few years more California will be the great wool-growing State of the Union; it now produces one-fifth of the whole yearly clip. Nearly all this wool is exported to the East to supply the mills and factories of New England, New York, and Pennsylvania. But there are indications of a change in this system. Half a dozen woolen mills are now scattered over the State, and their number is increasing every year. Already they consume a quantity which equaled the total production of the State in 1860, although this is only a small proportion of the total amount. Last year the value of the cassimeres, blankets, underclothing, etc., manufactured by the factories in this city, equaled $906,760, and employed 824 workers. The total production of woolen goods in the State about doubled this.

We have upward of 22,000,000 acres adapted to the cultivation of fruit, much of it being entirely useless for any other culture. What that soil can produce may be to some extent understood by any one who has had an opportunity of visiting the lower part of the city during the past two months. Here the production of the temperate zones and of the tropics might be observed side by side—the productions of Maine and those of Louisiana, all in profusion, and of size and quality undreamed of by those who have never visited the fruit markets of our city. During the months in question, the wharves, and the part of the city already mentioned, seemed to be wholly given to the fruit trade. Leaving out grapes, chiefly used for the production of wine, the production last season has been estimated at 30,000,000 pounds of apples, over 4,500,000 pounds of apricots; 10,000,000 pounds of peaches, and 1,700,000 pounds of cherries, and an unascertainable quantity of smaller fruits from the northern and central portions of the State, and 4,500,000 oranges and 1,500,000 lemons from the southern counties. Car-load after car-load of Bartlett pears and other choice fruits have been this year carried over the railroad to the East, and some have even reached Europe. By-and-by we shall supply the markets of the Eastern cities with semi-tropical fruit, which is now imported every year in immense quantities, all the way from the shores of the Mediterranean. Last month we shipped four thousand and six hundred cases of fruit put up by our local packers, to purchasers in the Empire city. In modern times the possession of inexhaustible stores of useful metals has rendered the possessors great and powerful; in fact made them the conquerors of the globe. Iron, tin, lead, and copper have proved of far more importance to the countries where they are found than would equal treasures of gold and silver, although the latter might far exceed them in value for the moment. But the ruder metals have enabled man to subdue the earth, and to render air, water, and the lightning the servants of his will. Various indications of iron ore have been found all over the State, and not long since it was announced that an inexhaustible deposit had been discovered at less than fifty miles distant from the city. Our deposits of copper and lead, in and near the borders of the State, are of such extent and value that we will probably, in time, supply a large quantity to the markets of the world. Lead in particular will, in a dozen years hence, rank among our most important productions, whether agricultural or mechanical. Beginning its export in 1870, last year we supplied 6,000 tons to the manufacturers of the Union. Copper, which was first mined at Copperopolis in 1862, was for several years exported in large quantities. In 1863, there were 3,660 tons exported; in 1864, 14,300 tons, and 173,236 sacks in 1865. The cost of transport from the mine to the vessel, and thence to New York, was so great that the pursuit of copper mining was for a time abandoned, and was not resumed again till this year, when a rise in the price of the metal all over America once more rendered it profitable to resume the working of our mines. Of quicksilver, we are one of the very few producing regions of the world, and have exported hundreds of thousands of flasks of it since its first discovery.

Coal has made Great Britain the great workshop of the world, and the treasury of the nations. It is that which has enabled her artisans to give more value to the base metals than similar quantities of gold —by it a piece of steel may, in proportion to its weight, be rendered of more value than anything else save the diamond. And now, when England's coal measures begin to fail, the cry is raised that the ruin of the nation is impending. We do not know what may be the extent of our coal-fields; as yet they have only been, as it were, scratched by the labors of the miner. First opened ten years ago, in 1862, when the Alameda and Contra Costa Coal companies were formed, the mines of Mount Diablo yielded about a thousand tons of coal. Since then the increase has been steady and progressive, the production being 15,000 tons in 1864, reaching for the whole coast nearly 150,000 tons for the year ending June 30, 1872. As a manufacturing State, our progress has been particularly noticeable, though not equally so rapid as has been our progress in other directions. In 1850, our manufactures might hardly be said to have an existence when compared with its present status. The whole number of establishments great and small throughout the State, was only 1,003; the capital employed, only $1,006,197; the material used, $1,201,154, the production, $12,862,522; and the number of hands employed, 3,964. The single city of San Francisco to-day has six times the number employed, and produces four-fold the amount of manufactures. In 1860 the number of establishments had increased three-fold, the capital twenty-three fold, the value of material used nearly fifteen-fold, the number of hands employed eight-fold, and the production four-fold — the figures being respectively: establishments, 3,505; capital, $23,682,593; material, $16,558,636; number of hands employed, 24,265; the value of production, $59,500,000. Each of these figures, save the number of establishments, has been almost reached by San Francisco to-day. The total value of the manufactures will not fall short of $70,000,000; the number of hands, 31,000, and the capital $40,000,000. This manufacture comprises upward of 170 different articles of various uses, and ministering in various ways to the wants of civilized life.

In the early days, our exports of treasure were confined entirely to the product ot the placers and mines of California; now they include those of nearly all of the Pacific Coast. The principal part of gold and silver deposits of California, Nevada, Arizona, Colorado, Montana, Idaho, etc., come to this city to be refined and coined, or exported. This amount of treasure thus exported was greater in those early days than it is now. We manufacture more now than we did then, consequently, we are not so dependent upon foreign nations as we then were; the money, therefore, remains in the country and circulates among the people. From 1848 to 1850, the amount produced was $66,000,000; in 1851, $45,989,000; in 1852, it was $45,779,000; in 1853, it was $54,965,000; in 1854, it was $52,045,637; in 1855, it was $45,161,731. Since then, it has been continually decreasing, until, in 1871, it became reduced to $17,253,456. This year, however, it has pulled up, having been for the last nine months of the value of $25,041,629. The total amounts thus shipped foot up in the nearly 25 years, since 1848, the enormous aggregate of one thousand and ten million five hundred and thirty-three thousand four hundred and ninety-five dollars ($1,010,533,495). This almost incredible amount of gold and silver has left the State since its foundation, and has been taken principally by Europe, China, and Japan —the former being the deposit bank of nations for the precious metals.

Our other exports have grown with our growth, until we are now the center of a commerce extending half round the globe. Yet that commerce, strong as it now is, and mighty as it is destined to be, has grown from small and feeble beginnings. For three years, from 1848 to 1851, it was worth about a million dollars a year, and consisted almost entirely in the transshipment of foreign goods. In 1852 it was equal to $1,500,000; in 1853 to $2,000,000, and in 1854 to $2,500,000. Next year it almost doubled, and continued increasing till it reached $8,532,439; in 1862 it had reached $10,565,294, being seven-fold that of ten years before. From this, it steadily increased to $17,000,000 in 1866, to $22,400,000 in 1867; and this year it will amount to fully $30,000,000, being about three-fold what it was ten years since, and fourteen-fold what it was twenty years ago. Reckoning in the bullion product, the total export this year will amount to over $60,000,000, a fifth part of the total exports of the United States, while we possess not more than a sixteenth of the population. From this it will be seen that our commerce is gigantic even in its infancy, and that it is advancing with giant strides. Every day new channels are opened up for it to develop in. We will furnish all America with the teas of China and Japan, and the silks and stuffs of our own looms and those of India; and shall distribute the coffees, sugars, rice, and spices of the Pacific

Isles and those of the Orient, as far east as the Mississippi. With commerce will come manufactures, and we will grow to be one of the distributing centers of the globe.

The increase in our population has been equally marked. Starting in 1850 with 264,497, we increased to 380,015 in 1860, and have been adding by excess of immigration over emigration, and by that of births over deaths, till we have now reached upward of 650,000. In fourteen years and nine months we have added by immigration alone, 214,701 people to the population of our State. In 1850, the city of San Francisco had not more than a fifth of its present population; Sacramento City has now double the population that Sacramento County had then; Stockton has nearly three times the then population of San Joaquin County, and San Jose is far and away beyond what was the whole population of Santa Clara County. We are now adding to our population at the rate of about 40,000 annually. This will give us in another decade a population of over a million.

What we have been able to do in the past shows what our future will be. With exports of merchandise and treasure, aggregating in twenty-two years the almost fabulous amount of one thousand two hundred and forty-four million of dollars; with a population increasing by three hundred per cent. nearly in the same space of time; with an acreage of improved land increasing in that period from 32,454 to about 6,000,000 acres; with a wheat crop of 20,000,000 centals, as opposed to 14,000; with a wine product of 6,000,000 gallons, as opposed to none; and with railroads aggregating over 1,200 miles when they were only dreamed of then, we may anticipate a most brilliant future, and may be confident that we shall be far more successful in the cultivation of the arts of peace than we previously have been.

OUR WHEAT.

A Tour through the Interior—Sacramento, San Joaquin, Livermore and Napa Valleys—Over 9,000,000 Bushels in Sacramento Valley—21,491,890 Bushels in the Three Valleys—600 Vessels needed to Ship the Grain—Large Warehouses Wanted—The Railroad must come into this city.

Having presented a statement relating to the product and movement of the wheat crop in the San Joaquin and Livermore valleys, your reporter set out on a tour of inspection through the great Sacramento valley, and to gather, if possible, such statistical and trustworthy information as would justify an opinion respecting the amount of golden grain harvested this year in that extensive and fertile portion of the State.

Embarking on the steamer Amador, Captain A. Foster, Commander, we started out over the beautiful Bay of San Francisco, bound for Sacramento City. The afternoon had been warm, but was tempered by a gentle breeze coming in through the Golden Gate. About one hour out, we passed near to the rocky islets, knows as the Bird Islands. These were literally covered with ducks, gulls, and pelicans, and as many more were hovering about seeking a resting place. At this point we met several steam tugs, towing long barges, heavily laden with wheat. Before reaching Vallejo there was a dead calm, and the surface of the bay was as smooth as a mirror.

We commence our observations of the wheat crop at Sherman Island. Mr. P. S. Beasley, of Emmaton, the landing on the island at which we stopped, was a passenger with us from San Francisco. He states that owing to the flooding of the land, consequent upon the breaking of a portion of the levee by great freshets last Winter, the wheat product of the island this year will only be about one-fourth of that of last season, or about 25,000 sacks. This gentleman estimates that at Rio Vista, Collinsville, and points along the river below Sacramento, nearly 50,000 acres of wheat were sown, but knowing that the yield was light in these localities, we only enter 50,000 sacks for these places.

On arriving at Sacramento City we sought information from shippers, dealers, and millers. There is but little wheat raised in the region immediately around the city. Mr. J. H. Carroll, for a long time a miller here, says that Sacramento County will give fully 50,000 sacks; and that part of Amador County lying in the valley, will yield 1,000 tons, or 16,667 sacks. We were very desirous before going up the valley, to obtain the opinions of those best informed here, as to the amount of wheat in that region, tributary to the boats on the river. For this purpose we applied to General Reddington, Agent of the California Pacific Railroad Company's steamers at Sacramento. The General hesitated, and expressed his incompetency to make a correct estimate; but stated that he thought the quantity could not be less than 50,000 tons—his assistant in the office placed it at 60,000 tons—and, that only about one-fifth of the amount had been moved. It will be seen in the report, that after making the trip up the valley, we were convinced that these estimates were entirely too low.

The steamers run up some two hundred miles above the city. We did not undertake the voyage up the river by boat, as it would require four days to make it.

Taking the cars on the Oregon Division of the Central Pacific Railroad, and passing by the fine orchards, vineyards, and gardens, on the outskirts of the city, we soon arrive at Lincoln Station, in Placer County, twenty-eight miles from Sacramento. There has been shipped from this station 2,500 sacks. In store, 18,333 sacks. To come in, 8,334 sacks. At Sheridan, and slips by the road-side, about 1,500 sacks have been shipped, and 10,000 more expected.

As we move onward, the land improves in quality. Crossing Bear River we notice some fine bottom lands, and at Wheatland Station, are in quite a wheat-growing section. Only 1,800 sacks have been shipped, about 3,000 sacks in store, and 30,000 to come forward. Shortly after leaving Wheatland Station, we pass through open plains and grazing lands, and as we approach the Yuba River the soil improves. Running over a trestle work, about a mile long, laid through the bushy bottom land of the Yuba, we cross that river and are at Marysville, the county seat of Yuba County. This is a town of quite extensive proportions, judging by its appearance from the railway station. It was established in the early times of the gold excitement and was the distributing point of supplies to the diggings in the foothills of the Sierras, some forty miles distant. As the mines were worked out, the town became depressed until the development of the fine agricultural region in which it is located gave it a start of permanent prosperity. It is fifty-two miles from Sacramento City, and was the terminus of the California Pacific Railroad until the floods of last Winter so injured a part of that road, near Knight's Landing, that the cars on that line only run now to that point.

There has been shipped from this station, about 12,000 sacks. In store here, 4,000 tons, and at Yuba City over 3,000 tons. We were told that a very small portion of the crop had been moved, not to exceed one-eighth. We consider this an over-estimate, and only enter 10,000 tons more as tributary to the rail at this place. Proceeding onward some four miles we cross the Feather River, where we see some fine bottom lands, on a portion of which are extensive fields of corn. We were informed by Mr. C. J. Bockius, who was on the train, that he owns a portion of these lands: and that last Winter he sowed a field with alfalfa and has taken off the crops of three tons each to the acre, and has a third crop now standing of equal weight, making nine tons of alfalfa to the acre, for a single season. This gentleman says the yield of wheat in this section is from twenty to forty bushels per acre. We soon pass through a tract of bush land with occasional clearing, and large Summer fallows. The country in this section is quite new, and only a small portion is under cultivation, grazing being the principal business. At twenty-one miles from Marysville, we reach Brigg's Station, in the vicinity of which considerable wheat is grown. Amount shipped from here, 4,201 sacks; and to come in at this and other stations and slips which we have passed, and where there are no regular agents, we put down 10,000 sacks. We notice an interesting feature in the landscape to the westward of the line over which we have just come. It is the Butte Mountains, some ten miles distant. In the very midst of this great valley, which at this point is some fifty miles wide, clear of the foot-hills, these craggy and sharp-pointed rocks tower upward, about a thousand feet above the plain, presenting an outline of lofty spires and pinnacles. They stand alone, like sentinels guarding the rich treasures which are spread out at their feet.

From Brigg's Station to Nelson, a distance of ten miles, is an open prairie, mostly adobe soil. It is principally used for stockraising. Between Nelson and Durham is the sheep ranch of G. W. Gridley, Esq., whom we saw on the train. This gentleman owns 30,000 acres, on which he has 15,000 sheep.

At Durham, Roble, and side-tracks, where wheat is shipped along this section, we could find no agents. From the best information we could obtain, there has been shipped from these points 5,000 sacks; on roadside, 3,000 sacks; still tributary to these places 50,000 sacks.

The whole country now becomes bush land, or rather what is called in the Western States, oak openings. The small timber and brush are cleared away, and the large trees are left standing. The roots of these run down so straight into the earth, that the ground can be ploughed directly up to the trunk, and the wheat is sown among the trees. Moving along seven or eight miles in this charming region we arrive at the flourishing town of Chico, and were driven to the Chico Hotel, kept by Ira A. Wetherbee, who knows how to make his guests happy and comfortable. Not a fly nor mosquito is allowed to enter the sleeping rooms in this house, as the windows and transoms are provided with wire gauze, which lets in the air but excludes the pests. The town was started in 1861 and now numbers over two thousand inhabitants. It is situated in Butte County, and near the center of a strip of land about forty miles long and averaging from six to eight miles wide, of rich, dark sandy loam, and is considered to be the best land in the State. Chico is 96 miles from Sacramento, and six miles eastwardly from the river. Colusa County lies opposite on the west side, and has this year the largest area and greatest yield of wheat it has ever produced. It may be said that the wheat raising counties in the upper Sacramento Valley, are Sutter, Yuba, Colusa, Butte, and Tehama; but the three great producing counties are Colusa, Butte, and Tehama. It is only about six years since these three counties were known to be capable of producing wheat in any quantity covered as they were with brush and oak timber; the land was used for stock raising. In clearing the land, the timber of a certain size was left standing to shade the land, and keep it moist. This timber is supposed to bring the installment of fine showers, which they always have over these counties in the month of May; and these secure the crops. The rains in all these counties were too heavy last Fall and Winter for the adobe land. The crop on these was therefore small—while on the sandy and loamy soil, the crop was unusually large, yielding in some instances from 50 to 80 bushels to the acre. Just on the skirts of the town is the stately mansion of General Bidwell. We met with the most friendly reception from this gentleman and his kind companion, and were conducted over their beautiful villa and through their delightful grounds. From the top of the lofty tower of the mansion is a magnificent view of the General's estate, and of the surrounding country. His ranch consists of 20,000 acres, 1,500 of which are devoted to garden and fruit trees. Then there is a large vineyard, extensive grazing lands, and 75,000 bushels of wheat were produced on the ranch this season. The Chico Creek, a beautiful mountain-stream as clear as crystal, after turning the machinery of his mill in one part of the premises, courses its way among shaded walks and dells in front of his mansion, flowing rapidly over a pebbly bottom, rendering it one of the most enchanting spots we have seen in our rambles over the wide world. Here we see a great variety of choice flowering shrubs, and the rose-trees of Sharon, 25 feet in height and covered with blossoms; orange trees loaded with fruit, but as it is their first year of bearing, it is not yet known whether they will ripen. It is exceedingly difficult to arrive at a correct estimate of the amount of wheat raised in these three adjoining counties. We have seen many of the threshers, the largest producers, and the heaviest dealers. They all say the crop is unusually large, and but little has been shipped.

Dr. Glenn, in Colusa County, owns a ranch extending 11 miles along the river and five miles back. A small portion was under wheat, and it yielded 100,000 sacks, or 200,000 bushels.

Mr. A. Bullard, of Davisville, who purchases largely in this section, estimates, that from Knight's Landing up the Tehama, from 80,000 to 100,000 tons will go by the river, and from what we have since learned we feel that we can take the figures between the two extremes and enter 90,000 tons as tributary to that channel.

Mr. Wetherbee very kindly brought out a dashing team and drove us through a fine section of the country. We never saw more beautiful farms or better land. The only drawback to our pleasure was the intensity of the heat; the thermometer was standing at 95 degrees in the shade, and we were most of the time sheltered by wide spreading oaks. These lands are held at from $30 to $75 per acre, as to locality.

At Chico Station there has been shipped 5,250 sacks and 35,000 more are expected. Leaving this point, we move on seven miles to Nord Station, where we receive the following statement:

Number of sacks shipped	7,798
Number of sacks in store	16,000
In neighborhood to ship	68,000
Total	91,798

Estimated yield per acre, 31 bushels.

A few miles further is Anita Station, where there have been

shipped (sacks)	8,000
To come forward (sacks)	25,000
Total (sacks)	33,000

We proceed onward through a magnificent country, with wheat threshed and lying in the fields and by the roadside, and on reaching Cana Station find immense piles of sacks. Here we receive from Mr. J. Hubbell, the station agent, the following written statement:

Tons shipped	3,000
On hand	3,000
Expected	16,000
Total	22,000

Or 366,667 sacks of 120 pounds each.

At Soto, Vina, and Sesina stations, and slips along the road over which we now pass, we could find no agents nor procure correct statements. But we enter 50,000 sacks as tributary to these places. Still passing on through fine oak openings and fertile lands which extend all the way from Chico, we soon reach the Gerke Grant, where there is an extensive vineyard, and where the celebrated Gerke wines are produced. As we approach the Sacramento River, we come to Pea-Nut Ranch on the bottom lands. This plant is cultivated here quite extensively by Chinamen.

Crossing to the west side of the river we are at Tehama Station, where there is a thriving town. This is a fine wheat-producing section, but, after passing some four miles further, the land is mostly used for stock raising, and where where we saw large flocks of sheep and herds of cattle scattered over the plains. The report obtained at the station is:

Tons shipped to date	240
On hand in warehouse	250
Expected to come in	5,000
Total tons	5,490

Twelve miles further on we arrive at Red Bluff. Distance one hundred and thirty-five miles from Sacramento city. The road extends to Redding, thirty-five miles from this point. Red Bluff is a nice little town, but the soil in this vicinity is what is called red-land, and is only adapted to grazing. Near the river is a strip of very good land. There is no wheat of any account raised here far shipment, nor on the line of road beyond. After remaining here over night, we returned to Sacramento, and stopped over Sunday at the Grand Hotel, H. D. Rowley, proprietor. This is a first-class house in all respects.

We will now sum up our investigations, and place them in a more condensed form. In giving the number of sacks we have reduced them all to a uniform weight of 120 pounds each.

Tributary to the river, from Sherman Island up, sacks	1,575,000
One-fourth of which has been moved or is in store	393,750
Number to come	1,181,250

Tributary to railroad from Sacramento City up—No. shipped		105,716
No. stored and roadside		215,167
No. to come in		862,001
Total tributary to road		1,182,884
To resume—unmoved along the river		1,181,250
Unmoved on line of road		862,001
Total unmoved		2,043,251
Shipped or stored by river	393,750	
Shipped or stored by rail	320,883	
		714,633
Total number raised		2,757,884

Or 5,515,768 bushels, or 3,309,461 centals—equal to 165,473 tons—for the Upper Sacramento Valley. We may have overestimated the amount to move by the river; if so, we have underestimated the quantity tributary to the rail, or *vice versa*. In either case we feel quite certain that there is more wheat up that valley than we have accounted for.

We next proceed to Knight's Landing, a very beautiful spot thirty-three miles from Sacramento City, and is the present terminus of the California Pacific Railroad, owing to the washing away of the tract last Winter on the east side of the river. This is an important point for the shipment of wheat down the river. There are large storehouses here, and every facility for doing the business. Some 5,000 tons are in store here and lying on the bank of the stream. It is said 20,000 tons will seek this point. We take no account of this now, as it was included in our former estimates. Taking the cars and moving on toward Vallejo, we first make a note at Cache Creek Station, where 5,000 sacks have been shipped, and 8,334 sacks are estimated to come in.

Proceeding on to Woodland Station, where we become perfectly amazed at the enormous piles and masses of sacks extending about a quarter of a mile up and down by the station. Numerous teams were hauling it from the great wheat fields of Yolo. There are in store and lying about the station 15,000 tons; quantity shipped 8,000 tons; to come in from the country 8,000 tons more; making 31,000 tons for this one station.

Four miles further on we come to Merritt's Station.

There has been shipped from here, tons	2,000
On roadside	4,000
Expected	1,000
Total	7,000

The next great point of shipment is Davis Station. Here we find immense piles of sacks lying about, and the storehouses are crowded.

Shipped from this station, tons	1,000
On roadside and in store	10,000
Expected to come in	7,000
Total	18,000

We are now in Solano County. Shortly after leaving Davis we cross the Putah Creek, and pass the great fruit ranch and peach orchard of Mr. Fred. Warner, the maker of the well-known "Warner Brandy." We are told that he has about 14,000 acres, and has made 9,000 gallons of cider this season. This whole section through which we are passing is a rich and fertile portion of the State.

The next place we stop at is Dixon Station. Here it looks as if the flood-gates had been lifted, and the wheat of a whole country had flowed to this point.

Amount tons shipped	7,909
In store and at roadside	15,000
Expected	1,000
Total	23,909

At a slip between this and Davis Station, we are informed by the Road Master, that there has been shipped 4,000 tons. On roadside, 15,000 sacks; expected at that point, 35,000 sacks.

Four miles from Dixon is Batavia Station—

Which has shipped, tons	2,100
In warehouse and yard	5,400
Amount expected	2,500
Total	10,000

We move along five miles further, and reach Vaca Station, where we learn that there has been shipped 38,467 sacks. In store and on roadside, here and at Vacaville, 4,323 tons, or 72,050 sacks. To come forward, about 50,000 sacks.

At Fairfield Station about 1,000 sacks will be handled. Passing on to Bridgeport Station, the returns are: shipped, 2077 sacks; expected, 1,200 sacks.

At Creston Station, or what is called the Summit, 750 tons will be handled.

Passing on to the junction, we took a run up through the Napa Valley to Calistoga, and remained over night at the Calistoga Springs Hotel, where we were most kindly entertained by the obliging proprietor, E. B. Badlam, Esq. After our long trip through the warm regions of the Upper Sacramento, it was refreshing to inhale the cool air of this delightful spot. But while we found the air was cool here, the waters were hot. Nature has made this one of the most romantic and attractive places in the State, and should be visited by every one. On our return trip we found it quite impossible to gather statistics along the line of the crop of the valley. There is not so much attention given to raising wheat here now as formerly. The land is mostly used for grape culture and stock raising.

At Vallejo we met Mr. Robert Sheehy, who knows all about the crops in this section, and he estimates the yield of Napa Valley, as follows:

From Napa City, westward, tons	8,000
From Napa City to Vallejo	2,000
Total	10,000

And the yield over the hills to Benicia at 1,000.

At Vallejo we lunched at the Bernard House, in the new and magnificent block just erected by General Frisbie. This hotel is a credit to Vallejo. Mr. J. M. Staples is the gentlemanly proprietor.

We will here sum up our gatherings from Knight's Landing to Vallejo, including Napa Valley:

Number of sacks shipped	539,419
Number by roadside and in store	924,384
Number to come forward	531,313
Total number of sacks of 120 pounds each	1,984,116

Or 3,968,232 bushels is 2,380,939 centals, or 119,046 tons.

Adding these figures to those entered for the upper part of the valley, and we find the total yield of Sacramento and Napa valleys is 4,742,000 sacks; or 9,484,000 bushels is 5,690,400 centals, or about 284,520 tons.

We now make a grand summing up, including our report published in the *Alta* of the 9th instant, and present our estimate of the total yield of the wheat crop this year in the San Joaquin, Livermore, Sacramento, and Napa valleys, and which shows the enormous amount of 10,745,945 sacks, or 21,491,890 bushels; or 12,895,134 centals, equal to 644,756 tons.

The distant reader must not take this for the total yield of our State; for we have yet to hear from all of the fine valleys, foot hills, and fertile slopes of the Coast Range. It may be thought by some who read this report that the estimates have been guessed at as we traveled rapidly over the country, and are not reliable. In following us from point to point it would appear so. But we have to state that we passed from three to four times over some portions, and severely taxed the time and energies of the agents to work up statistics. The station agent, conductors, dealers, growers, and the people generally, wherever we went, assisted us to obtain the best information; and for which they have our grateful acknowledgments. We may have over-estimated at some points, but we have under-estimated at others. The approximation to correctness is as near as is possible to obtain. Another point may be taken, that the number of sacks we are reporting will exceed the porportionate number of empty ones sent into the country. It should be borne in mind that we have in every instance reduced the sacks of wheat to a uniformity of 120 pounds each, while we are told everywhere that they will average 135 pounds, or two and one-fourth bushels. Our report, therefore, gives one-ninth more in number than those actually holding the grain reported. And again, a large proportion of the crop is not threshed and sacked as yet.

In passing over these extensive and fertile regions of our State, and seeing the enormous piles—bulwarks and ramparts, as it were —of sacks of wheat lying on the ground at stations, in the fields, along the roadside, on loaded cars standing about, and on long moving trains, in large and small warehouses, under sheds, little covered nooks, and every available place of protection, we were amazed and astonished at the productive powers of this wonderful country, and not over one-fourth of its capacity has as yet been developed.

If we have a favorable season, why may we not next year produce 50,000,000 bushels? The railways are every day being constructed through new and fertile, but hitherto inaccessible regions. The land is there opened up ready to be sown, and we have plenty of seed. Every business man who reads and thinks must see that the rapid construction of railways through our agricultural districts for the last two years has brought us to a crisis in our affairs. All who are not hopelessly insane or desperately stupid must now see that we have made a great mistake in not having the railroads brought directly into this city before this time. If we do not secure that advantage at once, the very greatness of our country and its producing powers will be the ruin of our city. We have only scratched the surface as yet, but are now just beginning to touch the springs which will unlock such a store of wealth and tonnage, that unless we prepare to meet it by a broad and liberal policy, and by a proper commercial spirit, we shall be disgraced in the eyes of the civilized world.

California wants 600 large ships to carry this year's crop. It is a disgrace to this great nation that we should be dependent on foreign ships to carry our own products.—*Alta*, Sept. 23, 1872.

OVERLAND IMMIGRATION.—The seven hundred and odd immigrants which arrived in California the last day of April, overland, are described as a healthy, well-to-do, agricultural class. It is such an immigration which builds up a State. It is reported that during the months of May and June about 6,000 immigrants may be expected to arrive in our State for the purpose of founding homes. The greater portion of this number will be from Michigan, Ohio, and Wisconsin.—*Resources of California*, June, 1873.

WAGES.

The Rewards of Labor in San Francisco—A Glance into Our Manufactories and Work-Shops—Number of Working Men and Working Women Employed—The Wages Earned by the Different Classes of Operatives—Our Industrial Army and Its Pay-Roll.

The prosperity of every country is truly measured by the condition of its working classes; and the rewards obtained for labor are so many indices on its social thermometer, so to say, by which may be measured its commercial and industrial status. The truth of this is manifested by the experience of century after century; its tests are world-wide. Among the countries of Europe, there is none whose commercial and industrial pulse beats more healthily than that of England; none whose wealth is greater, whose manufactures are so extensive and varied, and none whose workmen are so well paid. The United States, in this respect, is far ahead of the Old World. Here, too, prosperity is measured by the wages of the workmen, who, if he be at all economical, lives as well as does the middle-class tradesman of England. And California, where the wages paid to the mechanic and laborer are greater than those current in the Eastern States, is, in proportion to its age and population, far in advance of any State in the Union, save, perhaps, some of the new westerly ones of its own age, where the rewards of labor are fully as high. And while the wages earned in this city are in some instances rather low, in others they are such as would, in a few years, make capitalists of every one receiving them, if they practice economy in living. This, however, is not universally true; and some of the occupations given in the table at the conclusion of this article, are—when we consider that the employees are not constantly employed throughout the year—badly paid, even when measured by Eastern standards. These, however, are the fewer in number.

In the following article we aim to give a correct showing as to the numbers of workmen and remuneration of the various kinds of labor, premising that there are not less than about one hundred and eighty different manufactures, or other works, on which our army of labor is employed. This is a great number for a young city like San Francisco, and argues well for the future. In fact, to use a common saying, there is nothing, from a needle to an anchor, that San Francisco has not workmen competent to manufacture, had she the capital or the market for these productions. And the enterprise of Californians has left but a few avenues to wealth untried. Some manufactures, however, have not prospered so favorably as perhaps they ought.

First in order, and first in importance, come the workers in iron and steel, who number nearly three thousand. In busy times every one is employed, and then all that portion of the city lying south of

Market Street and east of Second is alive with busy traffic; the workshops are full of cheerful toilers, who live amidst the clanging of hammers, the whizz and buzz of machinery, and the torrid heat of a hundred fires. When the furnaces of that portion of the city are aglow, when the mines are prosperous, and when there is a demand for machinery and railroad iron from the foundries, machine shops, boiler-shops, rolling mills, etc., they keep over thirteen hundred hands at work.

The lumber workers of our city number not less than 2,500, who, when business is brisk, are making doors, windows, and sashes for this coast, the Islands, and Australia, railroad cars and street cars for the coast, woodenware for our farmers and for domestic use, wine vats and casks to carry the product of our vintage to Europe and the East, boxes in millions for the vast demands of our trade, and frames for pictures, resplendent in gold, and more gorgeous than the pictures themselves. And this year some hundreds of shipwrights and calkers were employed, not in building new ships as they ought to have been, but in repairing the old ones that came to carry away our grain.

The workers in leather number more than four thousand, of whom about two thousand are white, and the balance Chinese. The boot and shoemakers are probably the most independent body of men to be found on the Pacific slope, as the manufacture in which they are engaged has swelled to vast dimensions. After them comes the tanners and curriers, who number over two hundred; and then the saddlers, harness, and collar makers, who can muster, if they like, over four hundred men. Taking these and the preceding workers in metals, lumber, and leather from the roll of our manufacturers, there will be left of the thirteen thousand white workers, about seven thousand artisans, laborers, women, and boys, employed in the various manufactures of the city, of whom two hundred and seventy are employed by our manufacturing jewelers, lapidaries, etc.; twenty-six hundred in helping to clothe the people of the city; three hundred and eighty in manufacturing beer and spiritous liquors, and over one thousand manufacturing articles of domestic economy. In miscellaneous manufactures over another thousand are absorbed; while it will surprise many to find that San Francisco contains nearly eight hundred persons employed in the printing and newspaper offices of the city.

In the building trades there are something over a thousand persons constantly employed, of whom much the larger proportion are carpenters; the bricklayers, stone masons, and stone cutters who are not employed on the new Mint or the new City Hall, being few indeed. For these last few months building has been to a very great extent suspended, and but few houses are now going up. This will probably be rectified in the course of the next few months, when the gold and silver paid for the wheat products will find its way into the pockets of the producers and those whom they patronize. Then there will probably be a temporary scarcity of men in the building trades, for during the last year nearly all the unemployed ones found their way East, to St. Louis or Chicago.

The wages paid to white labor differ very much in amount, as may be seen by a glance at the concluding table. Many of the sums per diem appear very large, but in the majority of instances this is much reduced by the circumstance that these wages are paid only for a portion of the year. The emoluments of the workman vary from $2 to $8 per day, the latter being paid to first-class watchmakers. The mechanics in the foundry and machine shops receive from $3 to $5 a day, and the unskilled workmen, $2 to $2.50. But both these rates become very considerably reduced when the number of days worked is taken into account, the mechanic then appearing to receive only from $2.50 to $2.80 per day, and the helper, $1 50 per day. The boiler makers, last year, did better than their brethren of the foundries and machine shops, mechanics having earned from $4 to $4.50 per day, and laborers from $2.25 to $2.50 per day; the averages being for the year for mechanics, $2.91 to $3.75, and those for the laborer being $1 98. The mill hands, or those employed in the factories for the manufacture of doors, windows, etc., have been paid an average daily salary of $4.50, while the laborers have been paid $2 per day. The boot and shoe makers can earn, some of them, $30 per week; but here again, idle time during the year reduces the earnings to $4 and less per day. The wages made by saw-makers and billiard turners, who do not lose a day, are very large—the former being not less than $5 per day, and the latter $5.50. In trunk-making some of the skilled artisans work for $1.50 per day, that is, $1.50 per day when divided among the whole number of days in the year. The helpers in the carriage and wagon building average only $1.80 throughout the year. In the building trades all, but the carpenters, average $4 and $5 per day—the carpenters are an exception, on account of their numbers, and because, in this city, every one who can handle a saw and plane is dubbed a carpenter. Some watch-makers earn as many as $8 per day, though the average for the whole is but $5, and some men can be had for $3 per day.

The yearly earnings, as may be seen, vary all the way from $468 for iron fitters to $1,716 for ivory turners, a difference of nearly 400 per cent. The length of time during the year in which steady work is obtained varies considerably in the several kinds of manufacture, the workmen in some being employed all the time, while in others, during a couple of months, the full complement of hands is seldom or never worked. Thus, the foundrymen average about nine months, or only three-fourths of the year; the boiler makers average about ten months, and the mill hands nearly all the time; the boot and shoe makers about ten months, as also do the box makers, and stair makers, and many others. The brewers, saw makers, billiard-table makers, flour-mill hands, trunk makers, and furniture makers are employed full time. So also are tailors, compositors for the most part, electricians, and a great many other workmen.

The occupations of women and girls, in the way of trades and manufactures, number twenty-four. Over 1,000 are occupied in the manufacture of white goods, over 200 in the manufacture of textile fabrics and in boots and shoes. There were over thirty employed in the type foundries, and a few in the manufacture of gold leaf and in silver plating. All, or nearly all the boys' caps are now made by women, as also is a great deal of the ready-made clothing sold in this city; and a few are employed by our hat finishers. They are also found in photographic establishments and in book binderies, and in many other light employments. The whole number of women and girls employed in this way in the city is about 2,250. Their wages vary from $5 to $30 per week, generally averaging about $10. Boot closers and those employed in hat finishing earn sometimes $30 per week, or as much as men. The couple of dozen hands employed in type-sticking also earn tolerably high wages.

The boys employed are very few, not numbering quite a thousand. Of these, probably one-half are learning trades; the balance cannot, it is said, be induced to stay long enough in a place to learn anything thoroughly, but once that one thinks he has learned anything, he is off to look for higher wages—and so of course he never learns a trade. Where, then, are we to look for our supply of mechanics by-and-by? Must we always import artisans from Europe and the East? The wages of boys in the several branches of business vary from $3 to $15 per week.

The system of co-operation has been in existence in this city for the past few years, first beginning with the boot and shoe makers and the carpenters. Since then the marble masons, the foundry men, the furniture manufacturers, the printers, and the saddlers have taken it up; but the majority of the co-operative institutions have died. The cause has been disagreement among the members, and want of business tact. The men would become dissatisfied, and one by one withdraw, until the association became dissolved, and its property owned by one or two persons. Such has been the case with all the co operative boot and shoe factories, save one; with the co-operative marble masons, with the Mechanics' Mill, and some others

The Golden State, Columbia, and Miners' Foundry were conducted for a year or two on the system of industrial partnership, the employés having a share in the profits; but that has now been abandoned in all save the Miners' Foundry. In each of these foundries, at first, the men put in a small sum of money and gave so many days' labor, after which they were entitled to a share in the profits when a fair interest on their employers' capital had been deducted. The proprietors of the Miners' Foundry think well of the system, and we hope that many others will carefully watch the workings of the example just set.

In the following table nearly all the occupations that can properly be claimed as industrial are given, together with the wages at present prevailing in them; leaving out of the enumeration those engaged in domestic service, and the sewing women who work out by the day:

Occupations of Men.

Occupations.	*Wages per day while employ'd.*	*Av'e wages pr day.*	*Yearly wag's*
Foundrymen	$3 50 a 4 00	$2 50	$750
Moulders	3 50 a 4 00	2 50	750
Machinists	3 50 a 4 00	2 50	750
Pattern-makers	3 50 a 4 00	2 50	750
Blacksmiths	3 50 a 5 00	2 83	882
Blacksmiths, Ass'ts	2 00 a 2 50	1 50	468
BOILER-MAKERS.			
Flange-turners	4 00 a 4 50	3 75	1,144
Fitters	4 00 a 4 50	3 54	1,105
Riveters	3 75 a 4 00	3 22	1,005
Calkers	3.50	2 91	908
Laborers	2 25 a 2 50	1 98	618
MILL HANDS.			
Machine hands	4 00 a 5 00	4 50	1,404
Bench hands	4 00	3 75	1,170
Laborers	2 00	2 00	624
BOOT AND SHOE-MAKERS.			
Treers	5 00	4 00	1,248
Siders	4 50	3 60	1,123
Crimpers	4 00	3 20	946
Hand-siders	4 00	2 20	946
Bottomers	4 00	3 20	946
Fitters	2 50 a 4 00	2 60	811
Finishers	3 50 a 4 00	3 00	936
Packers	3 50 a 4 00	3 00	936
BREWERS.			
Maltsters	2 50 a 3 00	2 70	780
Drivers	3 00 a 4 00	3 50	1,080
Laborers	1 60 a 2 50	2 00	660
BOX-MAKERS.			
Cutters	3 00	2 25	702
Splitters	2 60	1 95	609
Laborers	2 25 a 2 50	1 70	576
STAIR HANDS.			
Wood-workers	4 00	3 50	1,092
Fitters	4 00	3 50	1,092
Millmen	4 00	3 50	1,092
Finishers	4 00	3 50	1,092
Turners	4 50	4 00	1,248
SAW-MAKERS.			
Saw-makers	4 00 a 6 00	5 00	1,560
Saw grinders and polishers	3 00 a 4 00	3 50	1,092
Laborers	2 50 a 3 00	2 75	793
BILLIARD-MAKERS.			
Billiard-makers	3 75 a 4 00	3 80	1,188
Bed fitters	3 60	3 60	1,123
Billiard fitters	3 40	3 40	1,064
Adjusters	3 00 a 3 50	3 30	1,033
Varnishers	3 50 a 4 00	3 75	1,170
Carvers	4 00 a 5 00	4 50	1,404
Turners	5 00 a 6 00	5 50	1,716
SADDLERS, ETC.			
Saddlers	3 50 a 4 00	3 75	1,170
Collar makers	4 00	4 00	1,248
Harness makers	2 50 a 3 00	2 75	858
Whip hands	4 00	4 00	1,248
FLOUR'G MILL HANDS.			
Millers	5 00	5 00	1,560
Laborers	3 00	3 00	936
DISTILLERS.			
Distillers	4 00 a 5 00	4 50	1,092
Machine men	3 00	2 00	624
Laborers	2 50 a 2 75	2 62½	819
WOOLEN MILLS.			
Weavers	3 00	2 25	702
Spinners	3 00	2 25	702
Laborers	2 00 a 2 25	2 12½	612
TRUNK MAKERS.			
Leather workers	4 00 a 5 00	4 50	1,764
Wood workers	$3 00 a 5 00	$3 50	$1,092
Iron fitters	1 50 a 2 50	1 50	468
Finishers	2 00 a 2 50	2 00	624
FURNITURE.			
Carvers	5 00 a 7 00	6 00	1,872
Cabinet-makers	2 50 a 6 00	4 00	1,248
Machine hands	3 00 a 3 50	3 25	988
TAILORS.			
Cutters	3 00 a 8 00	5 00	1,560
Tailors	3 50 a 5 00	4 00	1,248
ELECTRICIANS.			
Electricians	5 00 a 6 00	5 50	1,716
Brass finishers	3 00 a 4 00	3 50	1,092
GLASS WORKERS.			
Blowers	4 00	3 00	936
Helpers	2 00 a 3 50	2 25	702
CARRIAGE BUILDERS.			
Body makers	3 50	2 50	780
Wheelwrights	3 50	2 50	780
Trimmers	4 00	3 00	936
Blacksmiths	3 50	2 50	780
Painters	3 50	2 50	780
Helpers	2 00	1 50	468
MISCELLANEOUS.			
Compositors	3 00 a 5 00	3 50	1,092
Lithographers	3 50	3 50	1,092
Type-founders	3 00	3 00	936
Jewelers	3 00 a 5 00	4 00	1,248
Cutlers	3 00	3 00	936
Marble-workers	2 50 a 4 00	3 00	936
Book-binders	3 00 a 4 00	3 50	1,092
Silversmiths	3 00 a 5 00	4 00	1,248
Silver platers	3 00	3 00	936
Spring makers	3 50	3 50	1,092
Coopers	3 00 a 5 00	4 00	1,248
Boat builders	4 00	2 00	624
Wire-workers	4 00	4 00	1,248
Last makers	3 50	3 50	1,092
Wire rope makers	3 00 a 5 00	4 00	1,248
Rope makers	3 00	3 00	1,092
Glue makers	2 00 a 2 50	2 25	702
Mathematical instrument makers	2 50 a 5 00	3 00	1,092
Bakers	2 00 a 3 00	2 50	789
Soap and candle makers	2 50 a 4 00	3 00	1,092
Woodenware workers	3 50 a 4 00	3 75	1,170
Confectioners	2 50 a 3 75	3 60	1,122
Glass cutters	3 00 a 4 00	3 50	1,092
Silk spinners	2 50	2 50	780
Paper-box makers	2 50 a 3 50	3 00	936
Shipwrights	5 00	2 50	780
Calkers	5 00	2 50	780
Parasol makers	2 50 a 5 00	3 75	1,170
Tinsmiths	3 00 a 4 00	3 00	936
Bag makers	2 00 a 3 50	2 00	624
Hat finishers	4 00 a 12 50	3 50	1,092
Watchmakers	3 00 a 8 00	5 00	1,560
BUILDING TRADES.			
Stone masons	5 00	5 00	1,560
Stone cutters	5 00	5 00	1,560
Bricklayers	5 00	5 00	1,560
Plasterers	5 00	5 00	1,560
Plasterers	4 00	4 00	1,248
Carronters	3 00 a 4 00	3 00	936
Painters	4 00	4 00	1,248
Plumbers	4 00	4 00	1,248
Roofers	4 00	4 00	1,248
Hodmen	3 00	3 00	936
Laborers	2 50	2 50	780

Occupations of Women.

OCCUPATIONS.	*Regular weekly.*	*Av'g weekly.*	*Yearly.*	OCCUPATIONS.	*Regular weekly.*	*Av'e weekly.*	*Yearly.*
Boot-fitters	$15 00 a 30 00	$21 00	$1,092	Gold Leaf Manufacturers	$10 00	$10 00	$520
Woolen mill.	5 00 a 15 00	10 00	520	Saddlery	8 00 a 10 00	9 00	468
Carpet-bag makers.	9 00 a 12 00	11 00	572	Printers	13 00 a 20 00	18 00	980
Silk thread factory	2 50 a 9 00	5 00	260	Hairwork	7 00 a 10 00	8 00	416
Paper-box factory	6 00 a 12 00	9 00	468	Fur making	7 00 a 12 00	10 00	520
Shirt makers	7 00 a 10 00	8 50	442	White goods	8 00 a 15 00	10 00	520
Parasol makers	10 00 a 20 00	12 00	524	Kid glove makers	5 00 a 10 00	7 50	390
Tailoresses	10 00 a 12 00	11 00	572	Necktie makers	5 00 a 10 00	8 00	416
Cap makers	6 00 a 9 00	7 50	380	Artificial flowers	5 00 a 10 00	8 00	416
Bag makers	6 00 a 9 00	8 00	416	Flag makers	7 00 a 10 00	9 00	466
Hat finishers	15 00 a 30 00	12 00	624	Photography	10 00 a 15 00	13 00	678
Type sorters	7 00 a 12 00	10 00	520				
Silver platers	8 00 a 12 00	10 00	520				

—*Morning Call.*

NORDHOFF'S CALIFORNIA.

BY ROBERT BENTLEY.

You remember the legend, that of three parties who were looking at the moon, observing a dark spot upon the surface, the first saw the "man in the moon," with his bundle of sticks; the second, an aged maiden, saw in the same object, two entertaining lovers; the third, who was a clergyman, saw in the moon a church with a steeple, and all the good people (of the moon) filing in at the front door.

"Write us about California," "Tell us the facts," are the requests from strange correspondents from New England and the North-west. It scarcely needs mentioning to be admitted that California, as a whole or any of its parts, will impress no two people exactly alike.

Mr. Hopeful visits his chosen place, and observes strawberries and tomatoes ripening, and beets growing into trees of the second and third year's growth; and gathers a boquet of honeysuckle, heliotrope, mignonette, and lillies, and writes back to frozen Illinois of his morning walk in December under a warm sun, with the mercury standing at seventy degrees in the shade; and, to cap the climax, will speak of sitting in comfort under the shade of a spacious verandah, fanning himself with his palm-leaf hat.

Mr. Despond who is somewhat troubled with indigestion, sees the same things, endures the same climate that the former enjoys. "True," he says, "the days are warm, but your nights are cool. Your hills and valleys are green, but your mountain peaks are bleak. Your land is high, your houses are meagre, your convenience at hotels and your lines of travel are crude." Strange as it may seem, both these statements are true from the different outlooks of these two characters. The object view of nature depends much upon the health, temperament, and self-interest of the spectator. This variety of character expresses itself in regard to the qualities of the State. The same is true in the popular appreciation of "Nordhoff's California."

It is amusing to hear the different criticisms of this popular author on California. Here is a stranger who tells us that Mr. Nordhoff has highly colored the facts. The stranger is an invalid. You see the flush upon his face, the eyes are too lustrous, and the complexion too fair. He conceived an ideal California for consumptives, where skies are cloudless, the temperature is uniform, and where, by each rising sun, his cough would grow less violent, the flush would pass from his cheeks, and his health be rapidly restored; but he has gained very slowly; perhaps he is going rapidly to the grave (for man is not immortal, even in Santa Barbara); but his ideal has not been reached, and he sees little beauty in the country, and perhaps sighs for the old home. But those invalids who are rapidly improving (as most do) are loud in their eulogies upon the country; so that they would eclipse many a "forty-niner" in having the acute form of that disease, known as "California on the brain.' Such invalids will tell you that Nordhoff has not begun to portray the bright side of California.

The general opinion in California of Mr. Nordhoff's book, I think, is that his work is accurate in its statements of facts and figures, natural and apt in all his illustrations, and given to see California from its brighter side. Those who have traveled most will approve most heartily the descriptions, statements, and figures of that author. I have not yet, in a single instance, found it to fail, that where a person has traveled the State over and resided within it six months but that will most heartily indorse this book with very slight modification. It was natural that our author should have seen the brighter side. He evidently has not the dyspepsia. He is a man of robust health; is of sanguine temperament; has the quick perception to seize upon salient points of interest, and at once separates the gilding from the gold. Everything he touched or saw of beauty or of growth received no disparagement from his facile pen.

In my judgment the author knows how to travel and therefore is just the man to point out the modes and lines of travel to tourists and hardy emigrants. Occasionally he leaves a difficulty or inconvenience unmentioned. Thus, in speaking of the trip from San Francisco to San Pedro, he leaves the impression of its being a pleasant sail by steamer, mostly in sight of land. But this is true to those only who are not sea-sick. Half of the passengers would not highly appreciate the ocean steamer's ride, nor care whether they were on the starboard or larboard side, no sooner than the vessel has steamed to the "heads" at the "golden gate." Nevertheless, the traveler should take the hint and secure his berth on the land side.

Persons on coming to Southern California are frequently disappointed in not finding more tropical fruits and vegetation. Their ideal both as to heat and products is keyed to what is realized at Panama. A careful study of the facts and figures in this book will reveal the exact status of tropical, grape, and general fruit culture. The presentation of facts and figures, pertaining to orange culture in Los Angeles, almond culture in Santa Barbara, and vineyard culture in Napa and Sonoma counties, serve to demonstrate what can be done in large sections of the State that have not yet been developed.

Again, the formulated tables on temperature as given in this book are conceded by Californians who have given most attention to the subject as reliable. In a later edition our author should italicize the following in reference to Southern California: "But pray remember," he says, "you will not find at any of these places tasteful pleasure grounds or large finely-laid-out places. Nature has done much; man has not so far helped her. Churches and schools are his first efforts, fortunately. Peace and security you may depend on. But do not expect to find in Southern California artistically-finished pleasure grounds." In spite of such plain English as this, you will find readers of Nordhoff's book, that have come hither with expectations of seeing the works of art and architecture, such as "Central Park" or Saratoga may furnish. The new California here (for there is an old Spanish California) is scarcely half a dozen years old.

To those strangers that have written me from Dubuque, Indianapolis, Knightstown, Richmond, Decatur, Chicago, and other places, in regard to California, I may presume to write that Nordhoff is regarded here as authority by the most intelligent men of the State on all questions relating to the topography, temperature, climate, prices of land, expense of living, etc., etc.

While it is true that Mr. Nordhoff traveled under the most favorable circumstances—Pullman reserved for him his best car, the stage company furnished its best whip, and the hotel its rarest viands for the "correspondent of the New York *Tribune*,"—yet he sees California in its lights and shades, in its prominent points and minor accessories.

Seldom has a book been written in so short a time, compacting together so many points of interest, and with such general accuracy. For describing and illustrating so ably this part of our national heritage, California owes her lasting gratitude to the author. May his coming book on the Sandwich Islands be a fit companion to his "California."—*Chicago Christian Advocate.*

THE PROSPECTS OF MARIN COUNTY.

The prospects of Marin County for the coming year are excellent. The abundance of rain has given assurance of a large crop of natural pasture which is the chief reliance for our dairymen, and feeding of sheep and neat cattle. The grain fields are generally in good condition. The potato district on the northwestern corner of the county may be later than usual in planting, but will probably produce as well as ever. Besides those benefits however, which come from a favorable season and are shared by a large part of the State, we have expectations of special advancement in our county from local improvements. The work has been commenced on the Narrow Gauge Railroad, and promises are made that eighty miles shall be in running order, from Saucelito to Bodega, before the end of the year. The cars will then give convenient access from San Francisco to numerous charming places, and many will come here to get cheap homes, in a wholesome clime, and still more will come for pleasure. The road will pass through San Rafael, which is already the chief health resort for the San Franciscans—that is, for those who wish to go to their business and back home in one day—and must greatly improve when the trip, instead of requiring two hours, can be made in one. Besides, the area available for homes will not then be so restricted as it now is. The valleys back of San Rafael will have their stations, and as their climates are equally good and their lands far cheaper, they will soon become populous.

Within less than twenty-five miles from the metropolis, the cars will take the people of the city into the heart of the redwoods, and give them opportunities for finding a class of forest scenery not to be found on the line of any of the roads now finishedin the State below the altitude of Auburn. The roads in the Santa Clara, Pajaro, Petaluma, Napa, Suisun, Sacramento, and San Joaquin valleys run through plains either bare or sprinkled sparsely with trees; but ten miles westward from San Rafael we come upon dense forests of redwood extending for miles upon miles, through which the rays of the sun with difficulty find their way to the ground. In the Summer these woods will be favorite resorts for pleasure parties, either for picnics or camping; and from them the county will, perhaps, derive as much profit as from the heavy freighting and the other classes of business accommodated by cheap and speedy communication.—*Alta*, 1873.

A RIVALRY TO RAISE THE BEST SHEEP.

Moreover, I find that the best sheep farmers [in California] aim to keep, not the largest flocks but the best sheep. There is no doubt that the sheep deteriorates in this State unless it is carefully and constantly bred up. "We must get the finest bucks from Australia, or the East, or our own State," said one very successful sheep farmer to me; "and we must do this all the time, else our flocks will go back." "It is more profitable to keep fewer sheep of the best kind than more not quite so good. It is more profitable to keep a few sheep always in good condition than many with a period of semi-starvation for them in the Fall," said another, and added, "I would rather, if I were to begin over again, spend my money on a breed worth $6 a head, than one worth $3 or $4, and I would rather not keep sheep at all than not fence."

He had his land—about 25,000 acres—fenced off in lots of from 4,000 to 6,000 acres, and into one of these he turned from 6,000 to 8,000 sheep, leaving them to graze as they pleased. He had noticed, he told me, that whereas the sheep under the usual corral system feed the greater part of the day, no matter how hot the sun, his sheep in these large pastures were lying down from 9 in the morning to 4 or 5 in the afternoon, and he often found them feeding far into the night, and raising again to graze long before daylight. They were at liberty to follow their own pleasure, having water always at hand. An abundant supply of water he thought of great importance. Of course, where the sheep are turned out into fenced land, no shepherds are required, which makes an important saving. One man, with a horse, visits the different flocks, and can look after ten or fifteen thousand head. The farmer whom I have quoted, does not dip his sheep to prevent or cure scab, but mops the sore place, when he has a scabby sheep, with a sponge dipped into the scab mixture. He gets, he told me, from his flock of 10,000 merinoes an average of seven pounds per head of wool, and he does not shear any except the lambs in the fall. It is a common but bad practice here to shear all sheep twice a year, and where, as is too often the case, a flock is very scabby, no doubt this is necessary. He had long sheds as shelter for his ewes about lambing time, so as to protect them against fierce winds and cold rain-storms, and he saved every year about 200 tons of hay, cut from the wild pastures, to feed in case the rains should hold off uncommonly late. His aim was to keep the sheep always in good condition, so that there should never be any weak place on the wool. His sheds cost him about $1 per running foot. The sheep found their own way to them.—*Chas. Nordhoff in New York Tribune.*

BUY SMALL FARMS.

Too many of the new comers to California are anxious to procure large tracts of land for occupation or speculation, instead of careful cultivation, The Russian River *Flag*, published in Sonoma County, recently gave the following advice and information to the people who crowd the cities and large towns of California. Eastern people who think of coming to this State, besides obtaining considerable information from it, which may be new to them, can also profit by the sound advice it contains:

Ten years hence there will be hundreds of men in this State regretting that they failed to buy small tracts of farming land when it was to be had at a mere trifle. There is hardly a county within the State of California that has not within its limits a few acres of excellent land, capable of yielding to a farmer a good return and a luxurious living. These lands can be purchased to-day for almost nothing: ten years from now they will command a price, one that will be beyond the means of the industrious man of limited funds.

What is a small farm worth? says one. It is worth a home, a steady resource for the means by which to live and make the same desirable. It is worth having when it can be bought for a month's rent you are paying to affluent landlords for the house you live in.

It is worth improving, and realizing the profits of the improvements. Every county should consume its own produce. Let the small valleys, pockets, and plains, of rich, tillable soil, be made to yield their agricultural products, and the money that goes out of a county to enrich the produce-dealers of the large towns would be expended at home.

Of small fruits, there is a climate in California adapted to each variety, A small farm properly cultivated with a few fruit trees, growing from year to year, will soon net a wonderful profit from its fruit alone. In Southern California the walnut crops are becoming very lucrative. Chestnut trees are growing there also, and will soon be bearing. It does not require 20,000 acres to get a few fruit or nut bearing trees growing, nor an expenditure of $100,000 to commence a farm life with. If attention is paid to the growth of light fruits, those who devote their time to making the experiment will realize a hansome income.

Strawberries, particularly, are profitable, and two-thirds of the unoccupied lands, in counties considered agricultural, will produce strawberries. Garden fruits are profitable. Large farms are not needed for the purpose of improving these resources. It is, on the contrary, most desirable to secure to California the industrious labor of good citizenship on small farms, and the result of such labor, in light produce, for local consumption.

One half of the population of San Francisco are living in rented houses, or in lodgings. The money expended for rents and lodgings would buy a small farm for every family, and secure to them an inheritance from year to year, at once independent and comfortable. If gardens are so productive to the Italian that he can amass wealth in a few years, by peddling the produce, surely a thriving little farm, capable of raising not only garden vegetables, but expensive fruits, could be made lucrative.

One acre of raspberries will yield 600 gallons of wine, which, if of good quality, is worth from one dollor to a dollar and a half a gallon at wholesale. Blackberries command a good price always, and of the wine the same may be said as of the raspberry. Currants are easily raised, and the soil of the rich little pocket lands among our foot-hills is particularly suited to the culture of the currant bush.

In Southern California, where there is such an abundance of good farming land to be had, all the choice products, native to the semitropic clime, can be easily produced, and find ready market and high prices. Persimmons are already being made profitable in that part of the State. The soft-shelled almond, the olive, pomegranate, the nectarine, are each worth producing if properly cultivated. Small farms secure a thrifty-settled section, where churches and schools can be built, organized, and enjoyed. Large farms are obstacles to this great consideration. It is to be regretted that such a large proportion of our best agricultural resources are really useless. What a revenue to the industry and wealth of the State, and the several counties, would be secured, if some inducement could be made to those who are "living from hand to mouth," to take up these valuable little spots and make for themselves permanent, happy homes! The great success of the Western States is rapid improvement, and large laboring citizenship lies in the fact that they could offer to the emigrant small farms of 40, 60, or 100 acres. A man of small means could purchase a farm, stock it, plant it, and get a good start toward independence and wealth in a few years.

Here we can produce two crops annually, in some localities, of certain fruits. We have no long, cold winters to stop work in, but from January to January, a man can find his time profitably employed on his farm.

In Almeda County, plum trees have grown twelve feet in one year from the bud. "As a general thing, trees commence to bear fruit at about half the age at which they bear in the Eastern States," says Hittell, and the remark is a correct one. There is no portion of the world where fruit trees grow so rapidly, bear so early and abundantly, as in California; and it is to be hoped that our population will be increased, by a class of citizens who will settle down upon small farms, and reap the reward of the frugal and contented husbandman. There are acres of the richest land in the State lying useless, in patches varying from 60 to 200 and 300 acres; and can be had at reasonable figures.

A CALIFORNIA RANCH.

Dr. Glenn, of Colusa County, owns a ranch which contains nearly 45,000 acres. It embraces a frontage of eighteen miles on the Sacramento River and extends back about five miles. It is inclosed and divided by one hundred and forty miles of fencing. One tenant—G. W. Hoag—rents and cultivates about 10,000 acres of land, and the Gupton Brothers cultivate an equal portion. This year the Gupton Brothers sold 41,000 sacks of wheat; G. W. Hoag, 45,000 sacks. Some 15,000 acres are rented out to a number of farmers who work on a smaller scale. At the present time farming operations are going on this ranch at a lively rate, as the work of harvesting is progressing rapidly. Hoag is engaged in cutting seven thousand acres of wheat and barley. The crop will this year yield about twenty bushels per acre of wheat. In favorable seasons the yield has been about thirty-five bushels. The yield of barley is considerably larger. The total crop will amount to nearly 180,000 bushels. He is threshing his grain with one of Case's 48-inch cylinder threshing machines, which is run by a twenty-horse power steam engine. To supply this machine requires six large-sized headers and eighteen header wagons, all of which require the labor of one hundred and ten horses and fifty men. The machine has threshed five sacks of barley a minute, at which rate it has run for an hour and a half in succession. It has also threshed forty-two sacks of wheat in seven minutes. It will require about six weeks to thresh the entire crop. These are the operations of Hoag alone. Gupton Brothers have an equally large crop, and are driving business on about the same style. The smaller tenants are equally well employed.

CONDITION OF THE CROPS THIS SEASON.

Our grain harvest has now become quite general, the quality good while the impression prevails that the grand aggregate will equal that of last year. * * * Our combined exports of Breadstuff for the harvest year now drawing to a close approximate 10,500,000 centals. This includes 256,000 bbls Flour; the whole valued at $20,000,000. This year's Barley crop is large, probably greater than that of any preceding year. Oats and Corn are both promising. The Hay crop is immense. Beans a light yield. Of Wool our receipts exceed those of last year by 5,000 bales. * * * * The total figures for this year's harvest, as shown in the subjoined table, compared with the last, vary widely from popular anticipations recently entertained. The estimates are those of leading agriculturists, many of them raising Wheat by the ten thousand of centals, and are substantially correct. They enable us to show that the California Wheat crop of 1873–4 is greater than that of 1872–3 by more than 500,000 centals, or 25,000 tons.—*Commercial Herald*, June 19, 1873.

WEALTH OF CALIFORNIA.

Wheat product of 1872, bushels	25,000,000
Gold and Silver Yield, 1872	$80,000,000
Gold and Silver Exports for 16 Years	$656,000,000
Wheat and Flour Exports in 17 Years, centals	43,000,000
Foreign Imports, values of, 1872	$40,000,000
Receipts of Lumber in 1872, feet	237,000,000
Receipts of Domestic Coal, 12 Years, tons	1,500,000
Wool Clip of 1872, lbs	25,000,000
Wine Product of 1872, gallons	4,000,000

—*Commercial Herald*, January 17, 1873.

THE *Resources of California*, published monthly, by John P. H. Wentworth & Co., corner of Sacramento and Leidesdorff streets, San Francisco, at $2 per annum, is the best and most reliable paper that intending immigrants and others can subscribe to. It contains the latest news from every district in California, and, as a newspaper, does credit to our State. It has an immense circulation already in the Eastern States and Europe.

COST OF HOUSES, STOCK, TREES, ETC.

For the information and guidance of those who wish to know what it will cost to establish themselves here, we append the present market prices to the following articles:

A single-room house can be built at a cost of	$100 00
A two-room house with kitchen attached at a cost of	200 00
Barn and corral at cost of	100 00
Mexican unbroken horses will cost each	25 00
Good American horses will cost each	$50 to 100 00
Good milch cows will cost each	30 to 50 00
Single plows	20 to 30 00
Gang plows, four plows in each gang	60 to 65 00
Harness per set	20 00
Wagons	90 to 250 00
Hogs	8 to 12 00
Sheep	2 50 to 3 50
Osage Orange hedge plants per 1000	5 00
Grape cuttings per 1000	10 00
Blue gum trees per 100	5 00
Mulberry trees for silk per 100	6 00
Apple trees per 100	12 00
Pear trees per 100	25 00
Peach trees per 100	12 50
Plum trees per 100	25 00
Cherry trees per 100	25 00
Nectarine trees per 100	25 00
Persimmon trees per 100	35 00
Pomegranate trees per 100	35 00
Orange trees per 100	60 00
Lemon trees per 100	60 00
Lime trees per 100	60 00
Fig trees per 100	35 00
Olive trees per 100	30 00
Almond trees per 100	20 00
English walnut trees per 100	15 00
Strawberry plants per 100	1 50

The above prices are for trees two to five feet high and one to three years old. If grown from the seed, instead of buying from the nurseryman and paying him an immense profit, they could be produced at a fraction of the above prices.

It will be seen from the above list that a person desiring to secure a farm of 160 acres, and commence on an economical basis, would require for 160 acres of land at $10 per acre $1,600:

One-third payable down	$533 33
House	100 00
Barn and corral	100 00
Two Horses	50 00
One set harness	20 00
One wagon	125 00
One plow	25 00
Household utensils, seed, groceries, and cash on hand	246 67
Total	$1,200 00

By working during harvest time for his neighbors, he can obtain money enough to greatly assist him in the purchase of grape cuttings and trees for his vineyard and orchard. These figures are intended to show how comfortably a man with the above amount of money can make a commencement in establishing a home for himself and family. The purchase money for the land being payable in "greenbacks," there would be no discount on that, but, to the balance of the amount would have to be added the difference between the value of gold and "greenbacks." That, however, would not be found a hardship, as the price of everything he purchased would be brought down to a gold valuation, and everything he produced and sold from his farm would be paid for in gold. Those buying a small tract of land and desiring to lease adjoining land for cultivation, can do so on favorable terms.

WHOLESALE PRICES IN SAN FRANCISCO.

Wheat—Per 100 lbs, $2.

Barley—$1.45.

Corn—$1.30.

Oats—$2.15.

Rye—$2.50.

Hops—Per lb. 50c.

Flour—Per bbl. $4,50 to 6.

Hay—Per ton, $21.

Beans—Peas are scarce and higher, now held at 6 a 6¼ c; Small White, 5½ c; Butter, 5¼ a 5½c for large, 5c for small; Bayo, 3 a 3¼c; Pink, 3½ a 3¾ c; Red, 3½c; Lima, 4½ a 5c; Castor, 3½ a 4c.

Poultry—The supply is more liberal. Prices at date: Hens and Roosters, per doz., $7.50 a 9, as to size; Spring chickens, small, $3; large, $4 a 4.50; Ducks, tame, $8 a 9; Geese, tame, $1.75 a 2 per pair; Turkeys, 20 a 21c per lb; dressed Turkeys very scarce, 20 a 22c per lb; Hare, $3; Doves, 75c a $1 per doz.

Cattle—Beef is plentiful and cheap, selling by the quarter at 4 a 7c. Calves, plenty 5 a 7c. Mutton, 5 a 5½c. Lambs, 7c. Hogs on foot are scarce, but the demand is light, except for small. Prices 6 a 7¼c for live, and dressed, 9 a 10c, the latter price for small.

Dairy Produce—Receipts of Butter are less liberal, and prices firm, at 27 a 30c for good; choice, 32½c; fair, 25 a 26c. California Cheese, 12 a 14c. Eastern Cheese, 15 a 16c for good to choice. Fresh California Eggs are plentiful, at 22½ a 24c; 11,000 doz. Oregon, received by steamer, selling at 17 a 19c; Eastern Eggs exceedingly plentiful and dull, at 17 a 18c.

Fruits—Currants, Cherries, and Strawberries continue very plentiful and of good quality. Raspberries have also appeared as well as Apricots. Oranges are again in fresh supply from the Islands. Current rates are: Strawberries, $7 a 8 per chest; Raspberries, 35c per lb; Gooseberries, 7c; Red Currants, 8 a 10c; Cherries, choice, 25 a 35c; common, 8 a 12½c; Apricots, 5 a 8c; Oranges, Tahiti, $40 a 45 per M; Lemons, Sicily, $12 a 14 per box; Los Angeles,

$3 a 4 per C; Limes, $10 a 12.50 per M; Bananas, $3.50 a 4.50 per bunch; Pine Apples, $7 a 10 per dozen; Cocoanuts, $12.50 per C.

DRIED FRUIT—Apples, 6 a 7c per lb, in sacks, 7 a 8c, in boxes; Plums, 5 a 8c; pitted, 16 a 18c; Raisins, 5 a 12½c; Figs, black, 8 a 10c; Figs, white, 15 a 18c. Twenty-three boxes Los Angeles Oranges came up by last steamer, and sold at $5 a 6 per 100. A cargo consisting of 200,000 Tahiti Oranges arrived the fore part of the week, coming to a good market, and selling from ship at $40; jobbing at $45 per M.

A comparison of the above prices with those received by the farmers in the—so called—Western States, must prove another powerful incentive to them to seek this region of prolific soil and perpetual Summer. The cost of railway transportation from Fresno to the ship at San Francisco, is one quarter of a cent per pound, which, being deducted from the above prices, will show the net amount received by the farmer. As compared with the state of affairs in the "West," where *it costs more to pay the freight on grain to a sea-port than the farmer receives for his produce*, the position of the California farmer can be seen at a glance to be immeasurably superior. It should also be remembered that the prices quoted are paid in gold, which being applied to the payment on groceries, clothing, farming implements, etc., purchased at the "East" for greenbacks, enriches our farmers still more, and shows the great advantage of our Gold and Silver currency.

To enumerate all the advantages which California in general, and this tract of land in particular, offers to the industrious farmer and horticulturist, would occupy too much space. We may, however, select a few of the more prominent ones, among which are, A RICH VIRGIN SOIL, A CLIMATE OF PERPETUAL SUMMER AND PERFECT HEALTHFULNESS, AN ABUNDANCE OF WATER, BOUNTIFUL CROPS, AND A HARVEST SEASON OF FIVE MONTHS' DURATION, IN WHICH THE GRAIN, HAY, AND OTHER CROPS MAY BE LEFT IN THE FIELD WITHOUT FEAR OF A DROP OF RAIN TO INJURE THEM. TWO CROPS A YEAR, AND NO FAILURE OF CROPS, being insured by irrigation; and, finally, A VARIETY OF CROPS SUCH AS CANNOT BE GROWN ANYWHERE ELSE IN THE UNITED STATES.

Parties going to examine property must not expect to find a country covered with cultivated farms, orange, lemon, fig, and almond groves in every direction, and nature reveling in a growth of tropical luxuriance, for directly the reverse of this will be found to be the case. They should remember that it is but recently that the country has been reclaimed from the thriftless use of the cattle and sheep owner, and that it is only within one year that a railway has been constructed to enable the farmer to market his crops. In all this, however, there is this advantage, viz.: The new comer to the State is enabled to purchase land at a very much lower price than if the country were thickly settled; and with such soil, climate, and abundance of water as may be found there, he can, in a few years produce such results (if he display but ordinary energy and industry), as will not only astonish himself, but which it would be utterly impossible to accomplish in any other portion of the United States. He may, at first, plant wheat, corn, cotton, jute, and other crops, which will give him an immediate cash return; and while not engaged on those crops he can utilize every hour of his time during the entire year, in planting vines, orange, lemon, fig, cherry, almond, and other trees, and otherwise improving and adorning his home. In five or six years the result of his labor, and the labor of his neighbors engaged in the same commendable enterprise, will be an enormous increase in the value of his property, sometimes amounting to five thousand per cent.—$500.00 per acre being no unusual price for a first-class vineyard or semi-tropical fruit orchard. It will also provide him a large and unfailing annual income, increasing as the years roll by, and, returning each day from his cotton fields and orchard, he may rest content in his cottage, in the midst of beautiful flowers, luxurient vines, palms, figs, olives, and bananas, shaded by orange groves, the enviable possessor of Health, Wealth, and a Happy Home. Further information may be had by applying to

WM. H. MARTIN,
General Agent, California Immigrant Union,
534 California Street, San Francisco.

SAN RAFAEL, MARIN COUNTY.

San Rafael has now a population of 1,200; its real estate has an assessed value of $2,230,000, which is less than its real value. The best business streets are Third and Fourth and B and C; land is worth an average of $50 per front foot on these streets. Inside lots on residence streets, five minutes' walk from the center of town, are worth from $8 to $12 per front foot only; ten minutes' walk from that center they are worth $6 to $10 per front foot, the depth in each case being one hundred and fifty feet. San Rafael is located on a sheltered nook of San Francisco Bay, only twelve miles from the city. It is nestled among rolling hills of great beauty, variety, and picturesqueness; these hills are tufted with wide-spreading and beautiful California oaks. The soil is open and gravelly, giving perfect drainage, and contributing to the remarkable healthfulness of the place. The drives are varied and beautiful; those near the bay are free from dust at all seasons. "Tamalpais," one of the most rugged and beautiful mountain landmarks in the State, stands within six miles of San Rafael, and is a grand feature in the landscape of the valley. The Marin County Water Company has just introduced into the valley and San Rafael a bountiful supply of the best water from the mountains. The climate of San Rafael is surpassed by that of few other places on the Pacific coast; it is equable and balmy at all seasons. *The town is a favorite resort for consumptives*, those suffering from *loss of strength and debility.* Nearly one hundred *invalids* from the Atlantic States are now living in San Rafael. They have there the advantages of *just such a climate* as is most beneficial to their diseases, while, at the same time, they are almost within a stone's throw of San Francisco and its society, doctors, and telegraphic and other means of communicating immediately with their friends on business or private affairs. Between twenty-five and thirty wealthy San Franciscans reside in San Rafael. The town is connected with the city by a forty-five minutes' beautiful sail, by steamer, and ten minutes' ride by connecting steam-cars. Three trips are made daily each way, the first train leaving San Rafael for the steamer and city at 7:45 A.M., and the last steamer leaving the city for San Rafael at 4:30 P.M. The fare each way is seventy-five cents; commutation tickets are issued at $10 per month. A railroad will soon be built from Saucelito to San Rafael, a distance of thirteen miles; the ferriage will then be reduced one-half in distance. The population of San Rafael has increased greatly of late; its hotels and many private boarding-houses are always full in Summer, and are well patronized even in Winter. The leading hotel is the Tamalpais, which is the best fitted up and conducted hotel on the Pacific coast outside of San Francisco.

Among our leading citizens doing business in San Francisco and having their residences and country-seats at San Rafael, may be mentioned, Mr. Robert Watt, one of the managers of the Swiss American Bank; Mr. Wm. T. Coleman, Merchant, firm of W. T. Coleman & Co.; Mr. J. D. Walker, of Falkner, Bell & Co.; Mr. M. J. O'Conner, of Conroy, O'Connor & Co.; Gen. W. S. Rosekrans; Messrs. Richard Hellman, Thos. Menzies, Alexander Guthrie, Robt. Balfour, M. M. Tompkins, of the Bank of California; Albert Dibblee; Wm. Barber, and Sidney V. Smith, Attorneys at Law; Mr. Stevens. Mr. Low, Mr. Moore, Valentine B. Doub, and A. Maillard.

San Rafael is the county seat of Marin County; the new Courthouse, which is to cost $75,000, will soon be completed. San Rafael contains four churches, and one public and several first-class private schools. Investment in real estate there and the erection of houses for rent both pay handsomely.

CLIMATE OF SAN JOAQUIN VALLEY.

EDITORS PRESS:—A farmer's steady work and busy thoughts in laying the foundation for another crop, have delayed the preparation of a report in full for 1872 of the temperature and rainfall of our inland climate. But here it is at last, made out for twelve months on the plan adopted for the past year.

It is offered to the readers of the *Press* with some degree of that pleasure which we all experience in a work completed even though such work be that in itself but small and unimportant. It enables us to approximate, for the first time, from actual observations for this part of San Joaquin Valley, the average and range of temperature for the year as well as for our Spring, Autumn, and Winter. I say, to approximate, for we must remember that to arrive exactly at such general averages for any climate requires similar observation to be accurately made, recorded, and calculated for at least ten years; indeed, it is almost the work of a lifetime.

Such as it is, however, premits the hope that it will not be a useless contribution to aid some future worker in making out the meteorology of our State.

We have tried, by careful calculations, from at least a thousand observations made in the course of the year at or near the hours indicated, to form an accurate and trustworthy

Table of Temperature and Rainfall.

MONTHS.	Average Tem'ature.			M'thly.	High	Low	Rain
	7 A. M.	2 P. M.	9 P. M.	Mean.	Tem.	Tem.	Inc.
January, 1872	40.20	52.30	46.15	49.21	61	27	2.38
February	44.68	59.11	49.69	51.16	67	35	2.42
March	46.16	63.60	50.40	53.38	70	36	1.45
April	48.21	66.40	50.80	55.13	77	36	0.97
May	56.45	78.39	58.65	64.49	90	40	0.00
June	64.57	86.86	65.25	72.23	110	52	0.18
July	68.23	92.48	71.15	77.28	104	61	0.00
August	69.68	91.72	71.95	77.78	110	59	0.04
September	63.59	88.25	69.37	73.74	101	43	spr'kle
October	50.57	77.19	57.25	61.67	94	38	spr'kle
November	39.68	63.56	47.46	50.21	72	23	0.28
December	36.74	56.77	41.57	45.02	63	10	4.70
Annual	52.39	73.04	56.64	60.69	110	10	12.42

Our locality, as has already been mentioned in the *Press*, is on the plains of Stanislaus County, midway between the Sierra and Coast Range Mountains, and about half way between the Tuolumne and Merced rivers. As we are not far from the center of the great grain-producing region of San Joaquin Valley, our climate may be correctly taken as a type of the climate of the entire valley.—*Rural Press.*

TURLOCK, Stanislaus County. J. W. A. WRIGHT.

PROFITABLE SHEEP KEEPING.

Mr. E. Giddings, of Woodland, some six or eight years since purchased eighty acres of land near town, paying for the same the sum of $700. He soon after seeded the same down to alfalfa, and purchased some good blooded sheep, which he has since been keeping upon it. The sale of the wool and some of the increase for three or four years past has netted him a profit equal to 10 per cent. on $500 per acre. In other words, the land has paid him an annual net profit of $50 an acre. A few of our grain-growing farmers would do well to seed down a portion of their land to alfalfa and buy a few head of sheep.

VINELAND, FRESNO COUNTY, CAL.

Office of the California Immigrant Union,
534 California Street, San Francisco.

Our association has for a long time past been receiving numerous letters from the States east of the Rocky Mountains and from all parts of Europe, asking for information about California. These have been answered, documents sent, and every exertion made to give the inquirers a fair statement of the resources of our State, and the superior inducements it offers to those who are disposed to emigrate hither, and use ordinary diligence to build up for himself a home. Charles Nordhoff, in his admirable work on "California," has given a fair and impartial statement of the advantages and disadvantages of our State. His statements, corroborated by the large number of persons who have visited our shores since the completion of the Continental Railroad, have induced a great many in search of a genial climate and a prosperous home to come to our State.

In order to accommodate the many applicants at this office who are seeking small farms, where they may enter into the cultivation of semi-tropical fruits—grapes, cotton, silk, ramie, jute, tobacco, etc.—we have sought and obtained a tract of land, which we are now authorized to offer to those who desire the same. The tract contains 10,000 acres of fine agricultural land, and is situated in Fresno County, two miles south of the head of navigation of the San Joaquin river, and four miles from Sycamore and Fresno stations, on the San Joaquin Valley Railway. It is divided into 64 farms, respectively, of 80, 160, and 320 acres.

A town site (Vineland) is laid out in the center of the tract, with streets 80 feet wide—lots 100x150—8 lots in each block. Lots for churches, schools, town hall, and other buildings, have been set apart.

The farms are offered for sale at ten dollars per acre, payable in greenbacks. One-third of which is payable upon delivery of a bond for a deed, and the balance is payable within four years, in equal annual installments, with legal rate of interest.

Each purchaser will be entitled to a lot 100 feet front by 150 feet deep in the town site—*free of charge.*

Parties desiring to pay up in full for the land, may do so, and receive an absolute deed for the same at once.

The foregoing offer must commend itself to those who are in search of a home. The price is as low, in greenbacks, as some of the adjoining, of the same quality, has been sold for in U. S. Gold coin.

The climate of this locality is as desirable as any other portion of the State. In Winter the thermometer ranges between 40 and 70 degrees. Snow never falls in the valley. Ice seldom forms—and frosts are slight and unfrequent. In Summer the thermometer occasionally reaches 100 degrees in the middle of the day, but the nights are always cool enough to necessitate the use of blankets. Sunstroke, which is so common in the Eastern States, is quite unknown in California.

The soil is a rich, sandy loam, easily cultivated, and will readily yield, with sufficient rain, thirty bushels of wheat per acre. It is admirably adapted to the growth of grapes, peaches, pears, cherries, oranges, lemons, figs, almonds, walnuts, cotton, silk, jute, ramie, sugar cane, etc., etc., all of which can be irrigated to great advantage. Fine water can be obtained in wells at a depth of 25 to 30 feet.

The experiments made in irrigation have been eminently successful, and in consequence, extensive irrigation works have been planned, and are now in course of construction. These works more than double the capacity of the land, and secure the farmer at a nominal cost against all contingencies of a drought.

King's River, having its source among the highest mountains of the Sierra Nevada range, is one of the largest rivers on the coast, and being supplied by the melting snows of the mountains, furnishes an immense amount of water for irrigation at all seasons of the year.

Four or five irrigation canals have been constructed from this river to supply the farmers in that section of the country, one of which has been carried out upon the plains 18 miles, and is finished to within three miles of this tract of land. At a small expense, this canal can be extended over this tract of land, thereby insuring two crops per year.

Owing to the mildness of the climate, very ordinary buildings can be made to answer for dwellings, and a shed is all that is absolutely necessary for horses and cattle. Lumber will cost at Fresno station, from $28 to $30 per thousand feet.

Driftwood in abundance can be obtained on the banks of the San Joaquin River, without charge. Very little is used, however, as the climate is so mild that fires are not necessary except for cooking purposes.

Great attention is given in this country to the subject of education. It is intended to have a good school in Vineland as soon as the people have established themselves in their new homes. In the meantime a good school at Fresno City can be availed of.

Markets for grain, vegetables, fruit, poultry, etc., can be found in the surrounding country—Stockton, Sacramento, and San Francisco.

For the sale of semi-tropical fruits, nuts, wine, etc., the market extends over the whole United States.

For full and more definite information concerning the productions of this State, we would refer to the accompanying extracts. Every article mentioned and referred to in these extracts can be produced on this tract of land with profit.

WM. H. MARTIN,
Gen. Agent California Immigrant Union,
534 California Street, San Francisco.

☞ Preserve this for future reference.

17-3

SUPPLEMENT
TO ALL ABOUT
CALIFORNIA

VAN VLECK & KEITH SC.

AND THE INDUCEMENTS TO SETTLE THERE.

[*For Free Distribution.*]

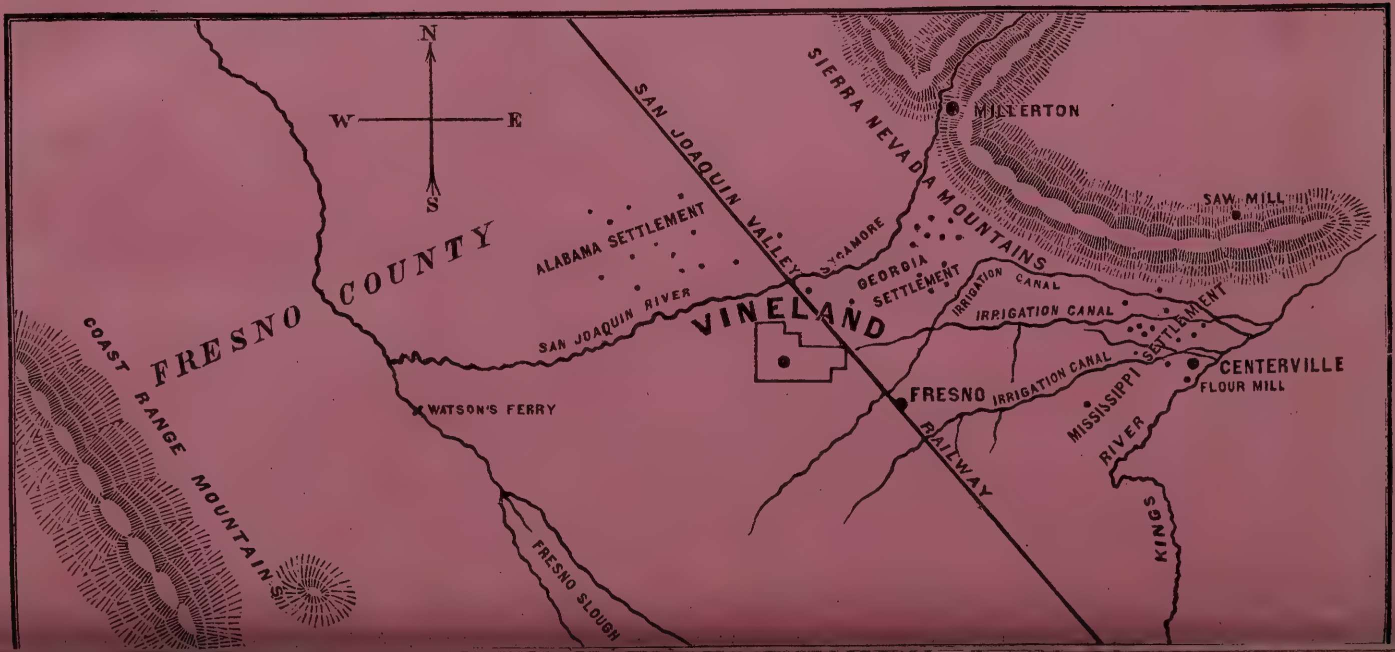
SAN FRANCISCO:
PUBLISHED BY THE CALIFORNIA IMMIGRANT UNION,
534 California Street.

1873.

CALIFORNIA STATE LIBRARY
CALIFORNIA SECTION

MAP OF A PORTION OF FRESNO COUNTY,

Showing VINELAND, its Surroundings, and the Irrigation Canals
in the Vicinity.



FORDHAM & JENNINGS
GROCERS,
600 and 602 Front St., 118, 120 & 122 Jackson St., San Francisc

Vineland,

Fresno County, Californien.

Office der California Immigranten-Union,
534 California Straße,
San Francisco, Californien.

Unſere Geſellſchaft hat ſeit langer Zeit zahlreiche Briefe n den Staaten öſtlich der Rocky Mountains, und von len Theilen Europa's erhalten, in denen Auskunft über alifornien verlangt wird. Dieſe ſind beantwortet wor- n, Dokumente ſind verſendet worden und wir haben uns le Mühe gegeben, um den Anfragenden eine offene An- be über die Hülfsquellen des Staates zu machen, und ber die bedeutenden Vortheile, welche der Staat jenen rbietet, die geneigt ſind, hierher auszuwandern, und ge- öhnlichen Fleiß dazu verwenden, ſich hier eine Heimath gründen. Charles Nordhoff hat in ſeinem bewunderns- erthen Werk über Californien eine ehrliche und unpar- iiſche Darlegung der Vortheile und Nachtheile unſeres taates gegeben. Seine Angaben, welche durch eine be- utende Anzahl von Perſonen, die ſeit Vollendung der ntinentalen Eiſenbahn unſere Küſten beſucht haben, un- rſtützt werden, haben Viele, die ein angenehmes Clima nd eine gedeihliche Heimath ſuchen, veranlaßt, nach un- rem Staate zu kommen.

Um die vielen Applikanten in unſerer Office zu accom- odiren, welche kleine Farmen ſuchen, wo ſie die Cultiva- on halb-tropiſcher Produkte — Trauben, Baumwolle, amie, Jute, Tabak ꝛc. — unternehmen können, haben ir eine Landſtrecke geſucht und erlangt, welche wir denen nzubieten autoriſirt ſind, die Land begehren. Die Strecke thält 10,000 Acker gutes Ackerbau-Land und liegt in resno County, zwei Meilen ſüdlich vom Schluß der chiffahrt auf dem San Joaquin River, und vier Meilen n den Stationen Sycamore und Fresno, an der San oaquin Valley Eiſenbahn. Sie iſt in 64 Farmen von ſp. je 80, 160 und 320 Acker eingetheilt.

Im Centrum dieſer Landſtrecke iſt ein Plan für eine tadt (Vineland) ausgelegt, mit Straßen 80 Fuß weit — ots 100 bei 150 — 8 Lots in jedem Block. Lots für Kir- en, Schulen, Stadt-Halle und andere Gebäude ſind be- its reſervirt.

Die Farmen werden zu zehn Dollars per Acker verkauft, hlbar in Greenbacks. Ein Drittheil hiervon iſt zahlbar i Auslieferung einer Verpflichtung, den Beſitztitel zu berliefern, und der Reſt iſt binnen vier Jahren zahlbar, gleichmäßigen jährlichen Abzahlungen, mit legaler Zin- nrate.

Jeder Käufer iſt zu einem Lot 100 Fuß Front bei 150 uß Tiefe in der Stadt berechtigt — ohne weitere nkoſten.

Käufer, welche für das Land den vollen Preis ſofort be- hlen wollen, können dies thun und empfangen ſofort den llen Beſitztitel.

Beſitztitel vollkommen—Ver. St. Patent.

Vorſtehendes muß ſich allen Denen empfehlen, welche ne Heimath ſuchen. Der Preis iſt ſo niedrig in Green- cks, wie viele angränzende Ländereien von derſelben ualität in Ver. St. Goldmünze verkauft worden ſind.

Clima.

Das Clima dieſer Lokalität iſt ſo wünſchenswerth wie as Clima irgend eines anderen Theiles des Staates. m Winter variirt der Thermometer zwiſchen 40 und 0 Grad. Schnee fällt niemals in dieſem Thale. Eis bil- et ſich ſelten — und Fröſte ſind leicht und ſelten. Im ommer erreicht der Thermometer mitunter 100 Grad ittags, aber die Nächte ſind ſtets kühl genug, um Decken öthig zu machen. Sonnenſtich, welcher ſo häufig in den lichen Staaten vorkommt, iſt faſt unbekannt in Cali- rnien.

Boden.

Der Boden iſt ein reicher, ſandiger Lehm leicht zu culti- ren, und erzielt bei genügendem Regen 30 Buſhel Wei- n per Acker. Er iſt ausgezeichnet geeignet zur Cultivation n Trauben, Pfirſichen, Birnen, Kirſchen, Orangen, Citronen, Feigen, Mandeln, Wallnüſſen, Baumwolle, Seide, Jute, Ramie, Zuckerrohr ꝛc. ꝛc., welche vortheilhaft bewäſſert werden können.

Waſſer.

Gutes Waſſer kann in Brunnen bei einer Tiefe von 25 bis 30 Fuß erlangt werden.

Bewäſſerung.

Die Experimente, welche mit künſtlicher Bewäſſerung gemacht worden ſind, waren außerordentlich erfolgreich und in Folge deſſen ſind ausgedehnte Bewäſſerungs-Anlagen projektirt worden, welche jetzt ausgeführt werden. Dieſe Anlagen verdoppeln mindeſtens die Ertragsfähigkeit des Landes und ſichern den Farmer zu einem nominellen Koſtenpreiſe gegen alle Folgen der Trockenheit.

Kings River, deſſen Quelle in den höchſten Bergen des Sierra Nevada Gebirgszuges liegt, iſt einer der größten Flüſſe der Küſte, und da er von dem ſchmelzenden Schnee mit Waſſer verſorgt wird, liefert er eine ungeheure Waſſermaſſe zur Bewäſſerung zu allen Jahreszeiten.

Vier oder fünf Bewäſſerungs-Canäle ſind von dieſem Fluß aus conſtruirt worden um die Farmer in jener Abtheilung des County zu verſorgen, und einer dieſer Canäle iſt 18 Meilen weit hinaus in die Ebene geführt worden und iſt bis auf drei Meilen von dieſer Landſtrecke fertig; durch ihn werden zwei Ernten im Jahre geſichert.

Bauholz.

In Folge der Milde des Clima's ſind ganz gewöhnliche Gebäude gut genug zu Wohnhäuſern und ein Schuppen iſt Alles was für Pferde und Rindvieh nöthig iſt. Bauholz koſtet in Fresno Station von $28 bis $30 per Tauſend Fuß.

Feuerholz.

Treibholz iſt im Ueberfluß und koſtenfrei am Ufer des San Joaquin River zu haben. Man braucht indeß nur ſehr wenig da das Clima ſo mild iſt, daß Feuer nur zum Kochen nöthig iſt.

Schulen.

In dieſem County wird der Kinder-Erziehung große Aufmerkſamkeit gewidmet. Es iſt beabſichtigt, in Vineland eine gute Schule zu gründen, ſobald die Leute ſich in ihrer neuen Heimath eingerichtet haben. In der Zwiſchenzeit kann man ſich einer guten Schule in Fresno bedienen.

Märkte.

Märkte für Getreide, Vegetabilien, Obſt, Geflügel ꝛc. findet man in der Umgegend — Stockton, Sacramento und San Francisco.

Für den Verkauf halb-tropiſcher Früchte, Nüſſe, Wein ꝛc. erſtreckt ſich der Markt über die ganzen Ver. Staaten.

Beſchäftigung.

Jene, welche ihre Zeit bis zur Pflügezeit zu verwenden wünſchen, nachdem ſie ſich auf ihrer Farm eingerichtet haben, können im Herbſt reichlich Beſchäftigung bei der Getreide-Ernte im Thale finden, zu Lohn, der von $2 bis $3.50 per Tag variirt.

Wegen vollſtändiger und genauerer Information hinſichtlich der Productionen dieſes Staats möchten wir auf die beigegebenen Extracte verweiſen. Jeder in dieſen Extracten erwähnte und angedeutete Artikel kann auf dieſem Lande mit Vortheil gezogen werden.

Wm. H. Martin, General-Agent,
California Immigrant Union,
534 California Str., San Francisco.

The California Immigrant Union

Is an organization whereof Wm. T. Coleman, of San Francisco, is President, and Governor Booth, H. B. M. Consul Wm. Lane Booker, ex-Mayor T. H. Selby, ex-Governor Leland Stanford, M. S. Latham, Wm. C. Ralston, Edgar Mills, Mark Hopkins, Jos. A. Donohoe, Consul Barroilhet, Major Richard P. Hammond and others, are Directors and Committeemen. One object of the organization is to supply immigrants with the information necessary to enable them to govern their movements after arrival in California.

Wm. H. Martin is General Agent of the organization.

The California Immigrant Union is composed principally of leading business men of San Francisco. Their interests are identified with those of the State at large. Their names are a sufficient guarantee as to the manner in which the business of the Immigrant Union will be transacted, and that the promises its officers may make will be honorably performed. It has no capital stock. The subscription of its members and friends are its only present means for the payment of its expenses. The measure of its success and usefulness will largely depend upon the voluntary and active co-operation of men of practical ideas and public spirit in the other counties of this State.

Valuable and reliable information concerning **Government** and **Railroad** lands can be obtained by application at our office. Copies of our publications will be forwarded, wherever likely to be useful, without charge.

All communications should be addressed to the

"California Immigrant Union," San Francisco. Office, 534 California St.

WM. H. MARTIN,

GENERAL AGENT,

LOCK BOX 1330. **SAN FRANCISCO.**

AGENT IN BALTIMORE, MD.

LOUIS DE RONCERAY,

No. 5 P. O. AVENUE.

Advice to Parties desiring Information about California.

Obtain a Copy of Nordhoff's Work on California—at any bookstore—and a copy of "All About California," and a copy of the "Resources of California" (monthly), at our office.

VINELAND,

FRESNO COUNTY, CALIFORNIA.

Farms for Men of Moderate Means.

LOW PRICES; VERY FAVORABLE TERMS.

PAYABLE IN

GREENBACKS.

PROPERTY ON THE LINE OF THE

SAN JOAQUIN VALLEY RAILWAY.

WATER FOR IRRIGATION.

NO FAILURE OF CROPS.

SAN FRANCISCO, CAL.
JOS. WINTERBURN & CO., PRINTERS AND ELECTROTYPERS,
No. 417 Clay Street, between Sansome and Battery.
1873.

VINELAND,

FRESNO COUNTY, CALIFORNIA,

Office of the California Immigrant
Union, 534 California Street,
San Francisco, California.

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A town site (Vineland) is laid out in the centre of the tract, with streets 80 feet wide —lots 100x150—8 lots in each block. Lots for Churches, Schools, Town Hall, and other buildings, have been set apart.

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Title Perfect—U. S. Patent.

The foregoing offer must commend itself to those who are in search of a home. The price is as low in *Greenbacks*, as some of the adjoining land, of the same quality, has been sold for in U. S. Gold Coin.

Climate.

The climate of this locality is as desirable as any other portion of the State. *In Winter* the thermometer ranges between 40 and 70 degrees. Snow never falls in the valley. Ice seldom forms—and frosts are slight and infrequent. *In Summer* the thermometer occasionally reaches 100 degrees in the middle of the day, but the nights are always cool enough to necessitate the use of blankets. Sunstroke, which is so common in the Eastern States, is quite unknown in California.

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The soil is a rich, sandy loam, easily cultivated, and will readily yield, with sufficient rain, thirty bushels of wheat per acre. It is admirably adapted to the growth of Grapes, Peaches, Pears, Cherries, Oranges, Lemons, Figs, Almonds, Walnuts, Cotton, Silk, Jute, Ramie, Sugar Cane, etc., etc., all of which can be irrigated to great advantage.

Water.

Fine water can be obtained in wells at a depth of 25 to 30 feet.

Irrigation.

The experiments made in irrigation have been eminently successful, and in consequence extensive irrigation works have been planned, and are now in course of construction. These works more than double the capacity of the land, and secure the farmer at a nominal cost against all contingencies of drought.

Kings River, having its source among the highest mountains of the Sierra Nevada range, is one of the largest rivers on the coast, and being supplied by the melting snows of the mountains, furnishes an immense amount of water for irrigation at all seasons of the year.

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Lumber.

Owing to the mildness of the climate very ordinary buildings can be made to answer for dwellings, and a shed is all that is absolutely necessary for horses and cattle. Lumber will cost, at Fresno station, from $28 to $30 per thousand feet.

Firewood.

Driftwood in abundance can be obtained on the banks of the San Joaquin river, without charge. Very little is used, however, as the climate is so mild that fires are not necessary except for cooking purposes.

Schools.

Great attention is given in this county to the subject of education. It is intended to have a good school in VINELAND as soon as the people have established themselves in their new homes. In the mean time a good school at FRESNO CITY can be availed of.

Markets.

Markets for grain, vegetables, fruit, poultry, etc., can be found in the surrounding country — Stockton, Sacramento and San Francisco.

For the sale of semi-tropical fruits, nuts, wine, etc., the market extends over the whole United States.

Employment.

After having established themselves on their farms, those who wish to utilize their time until planting time, in the fall can find plenty of employment in harvesting the grain crop of the valley, and at wages ranging from $2 to $3.50 per day and found.

Transportation.

The State is reached by the Union and Central Pacific Railroads, which offer reduced rates to emigrants by the fast train.

In reference to passenger rates and freights, all the necessary information can be had by applying to the following agents of railroad companies in the eastern cities :

J.N. ABBOTT, Esq., Gen. Passenger Agent, Erie Railway, New York; J. A. BURCH, Esq., General Eastern Passenger Agent, Lake Shore & Michigan Southern Railway, Buffalo, N. Y.; T. L. KIMBALL, Esq., General Passenger Agent, Union Pacific Railway, Omaha; FRANCE CHANDLER, Esq., General Ticket Agent, North Missouri Railway, St. Louis; BEVERLY R. KEIM, Esq., Gen. Ticket Agent, Kansas Pacific Railway, Kansas City, Missouri ; E. ST. JOHN, Esq., General Ticket Agent, Chicago, Rock Island & Pacific Railway, Chicago; F. KNOWLAND, Esq., General Agent Union Pacific and Central Pacific Railways, New York; D. M. BOYD, Jr., Esq., Gen. Passenger Agt., Pennsylvania Central R. R., at Philadelphia; L. M. COLE, Esq., Gen. Ticket Agent, Baltimore and Ohio Railway, Baltimore.

For full and more definite information concerning the productions of this State, we would refer to the accompanying extracts. *Every article mentioned and referred to in these extracts can be produced on this tract of land with profit.*

WM. H. MARTIN, *Gen. Agent*,
CALIFORNIA IMMIGRANT UNION.
534 California St., San Francisco.

COME TO CALIFORNIA IN COLONIES.

There are few persons who realize the great profit of immigrating to this State in colonies. They think that all that is necessary is to come here and purchase a farm and go to work. They entirely forget that if they would join a good colony, that they would have the advantage of schools, churches, good and near neighbors, and that their property would double in value the first year.

And a mistake that is made too often by colonists, is this: They think that they must go where Government land can be homesteaded, and therefore go beyond the limits of civilization. This is unnecessary; let ten, twenty, forty or more purchase in a county that is partly settled, and where land can be had at reasonable prices and terms, and they will make twice as much money and have one-half less hardships than by going entirely out of the reach of all settlements or improvements.

The above we clip from the June number of the "Resources of California." A careful consideration of the ideas suggested by the writer, must convince the thoughtful reader, that his conclusions are eminently practical and correct, and in endorsing his views we would call attention to the fact, that in addition to the advantages above enumerated our "Vineland plan" has these further advantages in its favor—that parties of two, four, eight or more, may come to California as soon as they are ready—and locate, without waiting an indefinite time for the formation of a large colony, they will know just where they are going when they start, and that while the settler will gain all the benefit in increase in the value of his property by the development of his neighbors' farms, as in the "Co-operative plan," he will also be free from any association entanglements—will reap the reward of his own industry, and will be free to do with his own as he pleases.

CLIMATE OF SAN JOAQUIN VALLEY.

Editors *Press*.—A farmer's steady work and busy thoughts in laying the foundation for another crop, have delayed the preparation of a report in full for 1872 of the temperature and rainfall of our inland climate. But here it is at last, made out for twelve months on the plan adopted for the past year.

It is offered to the readers of the *Press* with some degree of that pleasure which we all experience in a work completed, even though such work be in itself but small and unimportant. It enables us to approximate for the first time, from actual observations for this part of San Joaquin Valley, the

Average and Range

Of temperature for the year, as well as for our Spring, Autumn and Winter. I say, to *approximate*, for we must remember that to arrive exactly at such general averages for any climate, requires similar observations to be accurately made, recorded, and calculated for at least ten years; indeed, it is almost the work of a life-time.

Such as it is, however, permit the hope, that it will not be a useless contribution to aid some future worker in making out the meteorology of our State.

We have tried, by careful calculations, from at least a thousand observations made in the course of the year, at or near the hours indicated, to form an accurate and trustworthy

Table of Temperature and Rainfall.

1872.	Average Tem'ature.			M'thly	Hi'st	Lo'st	Rain.
	7 A.M.	2 P.M.	9 P.M.	Mean.	Tem.	Tem.	Ins.
Jan ..	40.20	52.30	46.15	49.21	61	27	2.38
Feb ..	44.68	59.11	49.69	51.16	67	35	2.42
Mar ..	46.16	63.60	50.40	53.38	70	36	1.45
Apr ..	48.21	66.40	50.80	55.13	77	36	0.97
May...	56.45	78.39	58.65	64.49	90	40	0.00
June..	64.57	86.86	65.25	72.23	110	52	0.18
July..	68.23	92.48	71.15	77.28	104	61	0.00
Aug..	69.68	91.72	71.95	77.78	110	59	0.04
Sept..	63.59	88.25	69.37	73.74	101	43	spr'kle
Oct ..	50.57	77.19	57.25	61.67	94	38	spr'kle
Nov..	39 68	63.56	47.46	50.21	72	23	0.28
Dec...	36.74	56.77	41.57	45.02	63	10	4.70
An'al	52.39	73.04	56.64	60.69	110	10	12.42

Our locality, as has already been mentioned in the *Press*, is on the plains of Stanislaus County, midway between the Sierra and Coast Range Mountains, and about half way between the Tuolumne and Merced rivers. As we are not far from the center of the great grain-producing region of the San Joaquin Valley, our climate may be correctly taken as a type of the climate of the entire valley.—*Rural Press.*

J. W. A. Wright

Turlock, Stanislaus County.

BUY SMALL FARMS.

Too many of the new comers to California are anxious to procure large tracts of land for occupation or speculation, instead of careful cultivation. The Russian River *Flag*, published in Sonoma county, recently gave the following advice and information to the people who crowd the cities and larger towns of California. Eastern people who think of coming to this State, besides obtaining considerable information from it, which may be new to them, can also profit by the sound advice it contains:

Ten years hence there will be hundreds of men in this State, regretting that they failed to buy small tracts of farming land, when it was to be had for a mere trifle. There is hardly a county within the State of California that has not within its limits a few acres of excellent land, capable of yielding to a farmer a good return and a luxurious living. These lands can be purchased to-day for almost nothing; ten years from now they will command a price, one that will be beyond the means of the industrious man of limited funds. What is a small farm worth? says one. It is worth a home, a steady resource for the means by which to live and make the same desirable. It is worth having when it can be bought for a month's rent you are paying to affluent landlords for the house you live in. It is worth improving, and realizing the profits of the improvements.

Every county should consume its own produce. Let the small valleys, pockets, and plains of rich, tillable soil be made to yield their agricultural products, and the money that goes out of a county to enrich the produce dealers of the large towns would be expended at home.

Of small fruits, there is a climate in California adaptable to each variety. A small farm properly cultivated, with a few fruit trees, growing from year to year, will soon net a wonderful profit from its fruit alone. In Southern California the walnut crop is becoming very lucrative. Chestnut trees are growing there also, and will soon be bearing. It does not require 20,000 acres to get a few fruit or nut-bearing trees growing, nor an expenditure of $100,000 to commence a farm life with. If attention is paid to the growth of light fruits, those who devote their time to making the experiment will realize a hansome income.

Strawberries, particularly, are profitable, and two-thirds of the unoccupied lands, in counties considered agricultural, will produce strawberries. Garden fruits are profitable. Large farms are not needed for the purpose of improving these resources. It is, on the contrary, most desirable to secure to California the industrious labor of good citizenship on small farms, and the result of such labor, in light produce, for local consumption.

One half of the population of San Francisco are living in rented houses, or in lodgings. The money expended for rents and lodgings would buy a small farm for every family, and secure to them an inheritance, from year to year, at once independent and comfortable. If gardens are so productive to the Italian that he can amass wealth in a few years, by peddling the produce, surely a thriving little farm, capable of raising not only garden vegetables, but expensive fruits, could be made lucrative.

One acre of raspberries will yield six hundred gallons of wine, which, if of good quality, is worth from one dollar to a dollar and a half a gallon at wholesale. Blackberries command a good price always, and of the wine the same may be said as of the raspberry. Currants are easily raised, and the soil of the rich little pocket lands among our foothills is particularly suited to the culture of the currant bush.

In Southern California, where there is such an abundance of good farming land to be had, all the choice products, native to the semi-tropic clime, can be easily produced, and find ready market and high prices. Persimmons are already being made profitable in that part of the State. The soft-shelled almond, the olive, pomegranite, the nectarine, are each worth producing if properly cultivated. Small farms secure a thrifty settled section, where churches and schools can be built, organized and enjoyed. Large farms are obstacles to this great consideration. It is to be regretted that such a large proportion of our best agricultural resources are really useless. What a revenue to the industry and wealth of the State, and the several counties, would be secured, if some inducement could be made to those who are "living from hand to mouth," to take up these valuable little spots, and make for themselves permanent, happy homes! The great success of the Western States is rapid improvement and large laboring citizenship, lies in the fact that they could offer to the emigrant small farms of forty, sixty, or one hundred acres. A man of small means could purchase a farm, stock it, plant it, and get a good start towards independence and wealth in a few years.

Here we can produce two crops annually, in some localities, of certain fruits. We have no long, cold Winters to stop work in, but, from January to January, a man can find his time profitably employed on his farm.

In Alameda county, plum trees have grown twelve feet in one year from the bud. "As a general thing, trees commence to bear fruit at about half the age at which they bear in the Eastern States," says Hittell, and the remark is a correct one. There is no portion of the world where fruit trees grow so rapidly, bear so early and abundantly, as in California; and it is to be hoped that our population will be increased by a class of citizens who will settle down upon small farms, and reap the reward of the frugal and contented husbandman. There are acres of the richest land in the State lying useless, in patches varying from sixty to two and three hundred acres; and can be had at reasonable figures.

[The following is from our Letter, No. 10, of July, 1872.]

The staple crop of the San Joaquin Valley is wheat raised for export, of which article an immense amount has been reaped this Summer, yielding an average of twenty-five bushels per acre; while in many cases forty to forty-five bushels have been realized. This crop was planted chiefly in the northern portion of the valley, say as far south as 100 miles below Stockton, on both sides of the San Joaquin River, in tracts ranging in area from 160 to 10,000 acres. South of this region the population is not so dense; and the crops were chiefly raised for home consumption. This crop was raised without irrigation; where irrigation has been used the land has yielded a fine crop of Indian corn, after the wheat or barley has been harvested. Wheat and barley after being sacked are allowed to stand in the field until shipped, the climate being such on the account of absence of rain from June to October, that no risk is run thereby, and thus a large item of storage expense is saved.

[From the Bulletin of Janurary 18th, 1873, we get the following.]

IRRIGATION AND ITS RESULTS.

One of the most successful colonies ever founded in the United States is that at Greeley, Colorado, fifty-five miles southeast of Cheyenne and fifty-five nearly due east of Denver. The Greeley colony occupies a locality in which it is said nine months elapsed a few years ago without the fall of a drop of rain. The site, in fact, is on the great American desert, as it was once ignorantly called. The colonists depended upon irrigation for most of their supplies of moisture in raising crops. Instead of viewing this as a hardship, it is found to be a benefit, for the reason that if rain could be counted upon at all, the farmers would not have been willing to go to the expense they did in making their irrigating canals and connecting ditches either so long, effective or reliable. The main canal is twenty-seven miles long, fifteen feet wide at the bottom, four feet deep, and has a fall of five feet to the mile. It only cost $50,000, and is already (in the second year of the colony) held to be worth half a million.

Full average crops have already been raised (twenty-three bushels of wheat and forty of oats) to the acre, though in many places everything is not yet in good working order. It is asserted that the wheat is not surpassed in quality by any raised in the United States. It is sometimes said that crops grown on irrigated land are watery and poor in flavor. There may possibly be some truth in this as regards those fruits in which sap or juice predominates ; but even in them we think it probable that the objection only applies where the land has been partially exhausted by working for ten or fifteen years, in the same crops, and without fertilizers. Certainly the experience of the Greeley colonists and of those who have used water artificially in our San Joaquin Valley, is that *all* the crops raised are noted quite as much for their fine quality and flavor as for their bountifulness in point of quantity.

The use of water for irrigating purposes, and its complete success in that direction, reaches back to the most remote period in the world's history, and no greater success, as a rule, attended any business branch or manual industry. We have made a beginning in this direction in our largest and dryest valley (that of the San Joaquin), and when the canals and their branches now projected, or under construction, are completed as they probably will be within four years or so, that region, which in dry years resembles and has frequently been called a desert, will produce the very largest crops of all kinds of agricultural products that are grown on the Pacific coast. The cost of supplying the great valley named with water will be small indeed, when the certain results that will accrue therefrom are taken into account. About 300,000 tons of wheat were last year raised in the San Joaquin Valley. In ten years hence, when it is all supplied with water and thickly settled, it will no doubt yield at least four times that amount, while in many places a second crop of corn will be cut and planted in the same year.

IRRIGATION—THE FARMERS' CANAL COMPANY INCORPORATED.

A mass meeting of farmers was held at Merced on the 17th instant. Addresses were delivered by Mr. Kehoe, James Morton, H. G. Ostrander, Montgomery, Simons, Steele, Wigginton, Ashe, and Clark. Captain Ashe told the meeting what he saw on the west side of the San Joaquin river. The grain before it was irrigated was almost burned up, but the land irrigated will now yield largely. On one side of the canal the grain was waist high, on the other side a barren waste. Farmers in that section told him, by having water when they wanted it they could raise two crops a year. Captain Ashe then introduced to the meeting Mr. Clark, as a gentleman who had tried irrigation this season with the most gratifying results. He stated he would relate to the meeting his own experience as to the policy of irrigation. This season he has irrigated, and as a result would have from forty to fifty bushels of grain to the acre. Where the water did not reach he would not get hay, although the grain was sowed at the same time. He had irrigated 160 acres in four days with the help of two men. The land that had been irrigated was made richer at every overflow. Before he began irrigating his land was worth $5 per acre. He had since refused $30 per acre for the same land. The meeting appointed as committee to confer with the United States Irrigation Surveyors, Messrs. Carrol, Clay, Howe, Simons, Montgomery, Wigginton and Kahle, P. Carroll was chosen as chairman of the committee.—*Bulletin, May* 28, 1873.

IRRIGATION.

Is it Practicable?—A Successful Experiment.

[From the Bulletin of the 13th instant.]

Editors Bulletin :—The Sacramento *Union* of the 9th instant, in an article discouraging a system of costly irrigation in season of drouth, "urges rather the cultivation of our tule lands," and charges that irrigation is likely to "introduce new and dangerous fevers, etc.," without, however, adducing such as the result in any of the present irrigated countries of the world. Look at China with its enormous system of irrigation, even in terracing her hillsides. Lombardy with her 4,500 miles of canals an "experiment" of 700 years. France, Belgium, Algiers, India, whose canals are mighty rivers, where the Jumna the Sutlej and Ganges, irrigate over 4,000,000 acres, studding an otherwise barren land with thousands of thriving villages. Not there do we find "new and dangerous diseases," rather here amidst "our tule lands," where fever, ague and mosquitoes prevail.

The *Union* asks, "Can any plan be devised for watering the wheat fields of the San Joaquin, the Stanislaus, Merced and Fresno counties ?" Is the *Union* ignorant that not only have plans been devised but that Fresno has a "plan" in successful operation for irrigating her fertile plains from King's river to the upper San Joaquin, and that the crops in the vicinity of the canal have been saved this year ? The Fresno Canal Company of King's River are now delivering about 1,000,000 cubic feet per hour, and have facilities for irrigating about 300,000 acres. On irrigated lands the saving in seed not only pays for the water but leaves enough to pay for feed to put in the crops, instead of 100 pounds per acre thirty pounds of wheat is found to be ample, so large do the plants stool out, and over double the crops is ensured beyond peradventure. Neither north winds, heat or rust jeopardize the crops of Fresno, they are absolutely certain. Besides this, a crop of corn can be raised after the wheat is harvested.

In most of our valleys the cost of putting in a crop of wheat varies from $4 50 to $5 per acre ; in Fresno, from $2 75 to $3, according to the cost of seed wheat, and the result on irrigated land may be counted on as nearly double ; that is, in Napa Valley 1,500 pounds is considered a very good crop; in Fresno, on irrigated land, 2,500 to 3,000 pounds, and in some instances much larger amounts. But the grandest result is the absolute *certainty*—there can be no failure—and besides that advantage, irrigation is a constant fertilizer. Shade trees flourish on the banks of the brook which every man may have at his door. Flowers, fruit and vegetables grow all the year. The climate is ameliorated, and in a word, homes are established. The great mountain reservoirs are full, and differing with the *Union*, I predict that the irrigation furor will never again sleep. All the great rivers of the Sierras will follow the example of King's river and create gardens on the plains.

IRRIGATION.

[From the Commercial Herald of San Francisco.]

In last week's issue we treated the subject of irrigation, and published the remarks of an informed correspondent bearing on that question. Since then we have recived another communication from him, which throws more light on the matter, and gives valuable statistics. It will be found appended.:

An article in the *Alta* of the 29th ult,, advocating irrigation, states, however, that manuring would be necessary. This is a mistake; the reverse being the fact. Irrigated land always produces more than land not irrigated, even where the rains may be ample. Flowing, water is a fertilizer in all cases.

The districts of Mortara and Vignano, in Italy, once arid wastes, are now among the most densely populated districts in Europe. Cornfields, green meadows, and rice grounds, are now found in place of the barren desert and pestilential swamp.

The canals of the Adda, in Lombardy, commenced 700 years ago, having a volume of about 13,000 cubic feet per hour, irrigate about 240,000 acres of those plains, the richest in the world. This is equal to about 66 acres irrigated to every cubic foot of volume per second—that is, a canal, or several canals, with a capacity of 60 feet width and 2 feet depth, and a velocity of 3 feet per second, will irrigate in that district the area mentioned.

In some districts, four crops of grass are cut annually. Of course in the sandy alluvial of San Joaquin and King's River plains, where one irrigation is sufficient for a crop, the same volume of water would probably irrigate three times that area for all purposes of cultivation, except rice. A French writer says that continuous discharge of a cubic foot per second will irrigate four acres in twenty-four hours with a stratum of water six inches deep. Another says, that a canal having a capacity of one cubic metre (about thirty-seven cubic feet) per second will irrigate 2,500 acres in six months. Another writer adopts the Litre (sixty-one cubic inches) as a unit (easily remembered) of continuous water per second to irrigate one Hectare of land. This would give 38,400 cubic feet per acre each month; but in a district in the south of France, 10,000 feet per acre has been found sufficient for grain crops. Therefore a canal, twenty-five by two feet and three miles velocity, would irrigate 58,500 acres; that is, six cubic feet per second would irrigate one acre, or one cubic foot per second irrigates 288 acres in that district. A canal, ten by two feet, velocity three miles per hour, will, after allowing for evaporation, irrigate 50,000 acres one foot in twelve months, or one cubic foot per second to 660 acres would probably be ample on our plains.

IRRIGATION.

Resources of California says Irrigation, which is considered requisite to good farming in countries where the rainfall exceeds thirty inches annually, will take a much larger place in the agriculture of California than it has now. There are now 671 irrigating ditches, each of which furnishes water on an average, to 100 acres of land. In many places it is difficult to start orchards or vineyards, or to grow kitchen vegetables, without irrigation.

The agriculture of California will never reach the proper basis of varied production and steady profit, until irrigation is practised far more extensively than it is at present. The dryness of the Summer will prevent the cultivation of many valuable plants over large areas until water is supplied artificially. Irrigation would be indispensable to the State if it were serviceable only for pasture. Our valleys have no sod, because the grass dies out in the Summer, and ten acres of dry pasture do not yield as much grass as one well irrigated would. In ordinary seasons, it takes about two acres to support a sheep on most of our grazing lands; and in Berkshire, England, thirty-six sheep were fed on an acre of irrigated meadow. The difference is as one to seventy-two. Irrigated land in France, Italy and England pays from $75 to $100 per acre annually. All the agricultural writers of those countries agree that extensive irrigation is indispensable to excellence in agriculture, and that all the water obtainable at any moderate price, should be carefully employed in stimulating vegetation. Yet there the rainfall is larger than in agricultural districts of California, the climate moister, the soil more retentive of water, and the need of irrigation consequently less than here. Lombardy has a more thorough irrigation system than any other part of the world, and it has the densest, most prosperous and most intelligent agricultural population of Southern Europe. In density, the Lombards rival the Hollanders and Belgians, who occupy a district that may be considered the European representative of the tule lands of California.

The San Joaquin Valley resembles Lombardy in situation and soil. The snow-covered Sierra Nevada, like the Alps, furnishes a supply of water that will last through the year, and there are numerous places where large reservoirs can be made at small expense. In Lombardy, irrigation has added $100,000,000 to the value of the tilled land, and it would probably do as much or even more for California.

IRRIGATION.

Messrs. Miller & Lux and various others along the line of the canal, on the west side of the San Joaquin River, are now very busily engaged with a large force of men overflowing their lands, which they have seeded with wheat, barley and alfalfa, and from the best judgment that can be obtained, what wheat they have irrigated will average 45 bushels to the acre, and alfalfa can not look or grow better than what it is doing. Messrs. Miller & Lux were about the earliest who realized the importance of irrigation, and are now reaping the benefits. They are irrigating on an average 750 acres per day, and they have about 75 men distributing water through their lands. There are also various others who are operating, not on so large a scale, but with equal success, and it will justify any person who takes an interest in the future prosperity of the great San Joaquin Valley, to go and see the great success of this canal and prosperity of the growing crops. —*Stockton Independent, May*, 1873.

SHEEP AND ALFALFA.

A few days ago the sheep of the State were rather unceremoniously "read out of the party" by one of the San Francisco papers in an editorial entitled "A Sheep is a Public Enemy." The reasons assigned were that sheep-grazing occupies too much space, and that our lands could be more advantageously used for other purposes. E. W. Peet, of this city, demurs, and presents figures to show that the decree is unjust. He states that 1,000 sheep purchased at $3 per head, and placed on land that may be bought for $10 per acre, will pay for the land, or nearly so, in two years. A Stockton paper states that a stock-raiser in that vicinity named Dodge, has purchased 2,000 high grade sheep at $7 per head' which he will place upon 100 acres of alfalfa land, and will thereby realize a net profit of $35 80 per acre. As our lands are gradually taken up and divided into small farms the natural pastures for both sheep and cattle will of course become more contracted. A different system of stock-raising must be adopted, or our large herds must be driven from the State. This phase of the business has not been entirely overlooked in this vicinity. Charles Watt & Co., of this city, who own a sheep ranch in the foothills, purchased a farm a year or two ago on the south side of the American river, twelve miles from the city, and are sowing alfalfa on all the land adapted to its production. The first lands sown have been successfully used in sheep grazing. They have kept fifteen sheep to the acre on this ground, and believe they can do so all the year round. They divide the fields, and after one tract is eaten off the sheep are placed in another inclosure until the alfalfa in the first has had time to recuperate, which it does very rapidly. Sheep thrive finely when confined exclusively to this feed. A considerable portion of our valley land is too dry for alfalfa unless it is irrigated, but there are millions of acres which will yield an immense growth of it if once successfully seeded. A moderate degree of moisture is indispensable. The higher tule lands are well adapted to this crop. The root is, however, entirely destroyed by water standing on the ground a few weeks in the Spring. Tule lands subject to overflow cannot therefore with certainty be depended upon. Under favorable circumstances five crops per year of two tons per crop may be cut for hay from an acre of alfalfa. Such vast yield will, of course, provide for large herds of sheep on small tracts of land. When stock raising and farming are properly combined our farmers will be able to economise in many ways so as to save that which they now waste or destroy. The straw and stubble alone which are now burned would constitute an important item of profit if fed to sheep or cattle. No farm should be without live stock to consume its unmarketable product, and none should be overstocked. Vegetables of several varieties which are easily raised in large quantities may readily be made available for winter food. The economical habits of New England and Europe might to some extent at least be advantageously adopted in this State.—*Sacramento Union, Dec. 27th*, 1872.

PROFITS OF SHEEP BREEDING.

E. W. Peet, in a late letter to the San Francisco *Chronicle*, in refutation of the ground taken by that paper that, "A sheep is a public enemy," thus illustrates the sheep breeding industry: "Sheep well cared for will double once a year; and take a common grade sheep, say a flock of 1,000, and put them upon land that is worth $10 per acre, and they will pay, one year with another, $5 per acre net profit.

1,000 sheep cost $3,000—interest on same at 10 per cent	$300 00
500 acres of land at $10 per acre, $5,000—interest on same at 10 per cent	500 00
Cost of herding 1,000	200 00
Shearing	100 00
Losses, two per cent	60 00
Total expense	$1,160 00
Contrary:	
Wool produced from 1,000 sheep, 6,000 pounds, at 25 cents per pound	$1,500 00
Natural increase, 1,000 lambs, worth $2 per head, year old	2,000 00
Total gross income	$3,500 00

Less expenses, $1,160, leaves a net profit of $2,340, or $4 68 per acre—nearly fifty per cent. of the value of the land. The above exhibit is very fair, as lands anywhere worth $10 per acre will keep more than two sheep per acre. But to illustrate more fully and to prevent a dodge, we will cite a case near home. Last week Mr. Dodge, of Stockton, purchased a flock of 2,000 high-grade ewes of T. McConnel for $7,000. They are to be placed upon 100 acres of land put into alfalfa and worth $40 per acre, and they will pay a net profit of $35 80 per acre to their owner.

100 acres land, $40 per acre, $4,000:	
Interest on same	$300 00
1,000 sheep cost $7,000:	
Interest on same	700 00
Shearing, etc	110 00
3 per cent. loss (not necessary)	210 00
Total expense	$1,140
Contra:	
1,000 sheep produce 8,000 ℔s wool, 25 cents per ℔	$2,000
Increase 1,000, worth $3 per head	3,000
Total	5,000
Less expenses	1,420
Net profit, or $35 80 per acre	$3,580

This land will produce forty bushels of wheat to the acre, worth on an average $48 per acre; less expense of producing, $18, leaving a net of $30 per acre. While wheat gradually impoverishes the land, sheep enrich it, and while cattle and horses tread up the soil in a wet time, sheep do not.—*Stockton Independent, Dec. 25th,* 1872.

ALFALFA.

The *Bulletin* of May 30th, 1873, says: If a farm of the average value of $10 an acre were well set in alfalfa, its value would be brought up to about $300 an acre. In Kern County, an acre set in alfalfa will sustain twenty sheep. An intelligent agriculturist in that county says that he can afford to pay for such land an annual rental of $25 an acre, or an interest of over 8 per cent. on a valuation of $300 an acre. That is bringing land up both in quality and price in a satisfactory way. If alfalfa is pastured there will be no danger of exhausting the soil. The fertilizing material will be abundant to keep it in the best condition.

You cannot bring wheat land up to any such value. Except in a few instances, there is no wheat land in the State, which having been cropped ten years, is as good now for wheat growing as it was ten years ago.

SHEEP HUSBANDRY IN CONNECTION WITH FARMING.

Having repeatedly called attention to this subject in our Annual Circulars, we now present our readers with the result of two years experience by parties who were induced to make the experiment. Many others could be presented, did space permit, showing a similar result. George P. Loucks a farmer of Antioch, Contra Costa County, says:

In 1869, I purchased 114 sheep at a cost of	$490 00	
Interest for two years	122 88	
		612 88
Net sales of wool for two years	366 98	
Sales of lambs, old ewes, and bucks	440 00	
Add interest	33 12	
		840 10
Net cash gain		227 22
Stock on hand, Oct. 1871, 179 head, at price offered for them, $3 75 per head—average		671 25
Total gain in two years		$898 47

In the above, no credit is given for losses from dogs and neglect, amounting to $51, or lambs slaughtered for family use, not less than twenty-five head. He says: I am of opinion that the value of manure and cleaning up weeds, is fully equal to value of use of land. I have resown the land occupied by them in 1870, and it is evidently clean of noxious weeds. Have seeded only about thirty acres occupied by them last year (the balance is too wet to plow), and it is almost entirely free of weeds; in fact, is much cleaner than the same land was by summer-fallowing three years since. In conclusion, I consider my few sheep a clear profit." O. Hubbel, a farmer, of Tomales, Marin County, says: "My experience in sheep raising has not been very extensive.

In the Fall of 1869, I invested for 21 head		$130 00	
Sales of wool and 5 head, the first year	$80 00		
Sales of wool second year, and losses by dogs	140 00	220 00	
Cash gain, without interest			90 00
My flock now, Feb. 2d, 1872, consists of 70 head of old ones, at $4			280 00
And 45 lambs, valued at $2			90 00
Total gain in two years			$460 00

"In connection with farming, sheep will pay their pasturage in destroying weeds, and in what they leave on the land."—*Miller's Wool Report,* 1872.

ALFALFA FOR PASTURE.

So far as we can learn farmers who have sown alfalfa for hay and pasture, under favorable conditions, have been well satisfied with their experiments. When the seed has been sown late in the Spring, and has not had the advantage of sufficient moisture for the roots to sink deep into the soil, the crop the first year has not been a promising one. In fact under the most favorable circumstances, alfalfa, the first year, will do little more than strike its roots down so as to produce a satisfactory crop the second year, unless there is the advantage of irrigation. We have seen small patches this year which looked very unpromising, the seed having been sown late, and the ground drying up before the roots were well down. The winter rains may bring it out, but it is doubtful if such fields will recover. The fact is, alfalfa is a very tender crop the first year, but a tough one after that. There are always some drawbacks when extraordinary advantages are promised. We know from experience that there is nothing like alfalfa to draw all the gophers in the neighborhood. Even in fields where one has never been found before, they will make their appearance as soon as the grass is fairly started.

At a recent meeting of the Farmers' Club of Napa, Mr. Coombs made the following statement:

"He was satisfied that any land good for corn would produce alfalfa. The only difficulty he had encountered was from gophers; they being very fond of the roots of this grass, would follow it. It is a very tender plant. If it was sown and an early frost came it would be lost; but after it came up and got set it became very hardy. There was no difficulty with it however if sown at the right time, in the right way, and soil. If in the Spring it should be put in moist land, if in the Fall dry soil, either would do. He had investigated this subject in the Sacramento Valley. Last year in June he had gone on some land of Haggin & Tevis to see about some sheep. He found there 23,000 head of sheep, and 1,000 acres of alfalfa. From this thousand acres there had been one crop cut and they were then cutting the second, and expected to have sufficient crop to cut a third had they desired; but their custom was to cut two crops averaging about two tons to the acre, and then use the third as pasture for the sheep, until that was gone, when the crops cut fed them the rest of the year. The sheep were kept fat and in good condition from that 1,000 acres. They had no gophers there, because the overflows drowned them out. He had heard only that morning of a farm in Los Angeles County, where forty acres in alfalfa kept one thousand sheep the year round, pasturing them from field to field. For fear this might not be believed, he had brought the friend who had told him of it with him to substantiate it."

Another member, aftervouching for the accuracy, of the foregoing statement, said that in Napa County he knew of alfalfa lands which sustained in good condition the year round, four head of cattle to the acre.

It is certain that our small farms must sustain more cattle and sheep, or cattle raising must be abandoned as only profitable on large farms. When land is worth from $60 to $100 an acre, it cannot be devoted profitably to cattle raising or sheep husbandry unless it can in some way be made much more productive. Now 60 acres in a farm of 160 acres devoted to alfalfa, premising that each acre thus treated would sustain four head of cattle, we have 240 head for this part of the farm, and 100 acres left for grain growing, and a variety of other crops. The same 60 acres would sustain 1,200 head of sheep which would yield a better revenue than could be got from the same area with the same amount of labor.

Many of the small grain farms have ceased to be profitable, the average production having decreased for a number of years. Sheep have been introduced to restore fertility and bring the farm up to its old standard. If by the use of alfalfa the 160 acre farm can be made to sustain 2,500 high grade sheep—and according to the data given it would—the returns would be much more satisfactory with sheep husbandry than from any other branch of farming.—*Bulletin*, August 19th, 1872.

ALFALFA FOR CATTLE.

It has frequently been stated that no pasture could be found better adapted to the sustenance and fattening of cattle than alfalfa. Its merits are based on several distinct facts, established by experience. First, It is more nutritious than ordinary grass; second, it produces more abundantly; third, it requires but little attention; fourth, it is good either for pasture when green, or hay, when cured. These conclusions were arrived at in a debate held the other day before the Farmers' Club of Napa County. Mr. Cornwell stated that he had twenty acres in alfalfa, seeded in 1854, and although it had suffered greatly from the depredations of gophers, he regarded it as the most profitable piece of land he owned. It yields three times more feed for cattle than any other pasture. In sowing, he seeded first with grain, and when it was half an inch high sowed the alfalfa and brushed it in. He gave the grain a start so that it would protect the alfalfa from frost. He understood that alfalfa grown from seed raised here is not as tender as from seed which comes from Chili. The seed is worth 25 to 30 cents per pound. The second year after sowing his, he cut it down five times. Loose soil is more favorable than heavy.

Mr. Truebody has a neighbor who sowed three or four acres of alfalfa on low, close land, and cut from it seven tons to the acre. He thought there was no trouble in producing it, if it was safe beyond the danger of frost. Mr. McIntire had a similar experience to relate. Alfalfa, he said, does well when it is properly cultivated. One of his neighbors has drained and plowed twice before sowing; another has plowed and harrowed well, and both pieces were fine. The former was seeded on the 10th of April. Mr. Lane, near St. Helena, has ten acres from which he cut two crops of hay before August, and then kept stock on it until late in the Fall. He thought Spring sowing best. Had sowed with barley, but thought it better to sow alfalfa alone. This concurrence of testimony ought to be satisfactory as to the superiority of alfalfa as food for live stock, and secure it more popularity with farmers than it has hitherto possessed.—*S. F. Call.*

Alfalfa.—At a late meeting of the Napa Farmers' Club, a statement was made that 1,000 sheep are kept the year round pasturing from field to field on forty acres of alfalfa, or twenty-five sheep on an acre; and that four head of neat cattle are kept on an acre. The land was irrigated in both cases. Five acres allowed for one cow or five sheep, of good natural pasture; so that one acre of irrigated alfalfa is as good as twenty of wild grass not irrigated.

The Tulare *Times* of October 5th says: Lux & Miller, who are among the largest beef cattle-raisers in the State, own extensive ranges of land on the San Joaquin and its tributaries. Of late they have seeded large tracts of land with alfalfa, which flourishes to such an extent as to make one acre of land supply as much food for cattle as was formerly yielded by twenty acres. More than this, the alfalfa land supplies food for cattle the year round, whereas hitherto the same land furnished grazing only five or six months in the year. The general introduction of alfalfa into grazing regions will also improve the quality of beef, and besides enable the graziers to dispense with three-fourths of the land now occupied by them.

According to an exchange, an Oakland man desirous of ascertaining why alfalfa continues green during the whole summer, pulled or dug up an alfalfa root, and found it six feet long, three months after planting. From a Truckee paper we learn that alfalfa roots washed out of the bank of a mining claim were fifteen feet in length.

The Los Angeles *News* says: We can beat this by five feet. The old *Culturist* makes mention of alfalfa roots exposed where in consequence of a break in a mining ditch a deep gully was cut. The roots of alfalfa of two years from seed, could be distinctly traced a depth of 20 feet perpendicular and almost filling soil and subsoil with the masses of small horizontal rootlets.

A Correspondent of the *Rural Press* writing from French Gulch, Shasta County, says of alfalfa, that it never produces a crop in the same summer, without irrigation. He speaks of an instance in which a field of it growing where the bed rock is within five or six feet of the surface and the surface of the rock always wet by spring water, and yet the alfalfa will do comparatively nothing unless irrigated upon the surface.

CULTIVATION OF ALFALFA.

The kind of soil that alfalfa naturally does best on, on this coast, is a light or sandy soil, where the roots can find water within seven to fifteen feet. On heavy soils, which crack during dry weather and where roots cannot easily penetrate the subsoil, or where the subsoil is cold, and stiff and stagnant, alfalfa will not do well unless the surface soil is kept constantly moist by irrigation. By a system of constant irrigation on such soils the roots do not run deeply but become habituated to depend upon surface moisture, and if the surface is not allowed to become dry it will not crack and the alfalfa will flourish about as well as on soil naturally adapted to it. On soils where it is adapted, it is about the most valuable crop that can be grown, when stock is also raised in connection with its culture to consume it. It may be grown on the same soil for any number of years without impoverishing it, as the roots penetrate so deeply and draw so much of the earthy salts required in its growth from the lower soils. No farmer who has a piece of land that will readily produce it can afford to be without a field of alfalfa, as it will afford a green pasture at the very season when everything else is dry, besides yielding as much or more hay than any other grass that is known. If sown this Fall, so as to get a good start with the first rains and before the heavy frosts come on, it will do just as well as when sown in the Spring after the heavy frosts are over. Those who have tried it sown with grain, and alone by itself, prefer the latter way. The land may be thinly plowed, but the harrowing should be finely and thoroughly done. Then sow fifteen to twenty pounds of seed to the acre and roll with a light roller. Allow no stock to molest it until it is in blossom. Should gophers trouble it, make war of extermination upon them at once or they will destroy the alfalfa, as they delight to eat up the stocky roots.—*California Agriculturist.*

THE COTTON FIELDS OF CALIFORNIA.

The successes of earnest men during the last and present year, would seem to indicate that we have a large area in Stanislaus, Merced, Fresno, Tulare and Kern counties well adapted to cotton growing. We are every week making mention of superior samples sent us from two or more of the counties named; and still they come.

The Buckley Bros. in Merced County probably have the largest field of cotton in the State—250 acres. We do not speak of it as a large field of cotton, where cotton has long been a staple product; but here, where the business is but an experiment, and has always been considered as an uncertain one, it may be mentioned as a large field.

One of the brothers called a few days since and we learn from him that they are daily expecting from the East a gin of 60 saws, capable of ginning 8 bales in 24 hours of from 400 to 450 pounds to the bale. The gin with a Duane Press—the latter made in San Francisco—will be set up; with one of Hoadley's 10-horse power steam engines, at Hopetown, Merced County.

The ginning commences with the picking of the cotton. Sixty Chinamen are employed at present, but after the first frost the force will be doubled. They pick from 80 to 85 pounds of cotton each, per day; are paid $25 dollars a month and they board themselves.

The brothers connect the culture of hops with that of cotton; the picking of their 18 acres having closed just in time to commence on the cotton, making no break in the season of employment. Their hops have yielded 1,500 pounds per acre kiln dried.

The variety of cotton the present year is with them mostly the Dixon, and will yield 400 pounds or over per acre.—*Rural Press*, Oct. 19, 1872.

COTTON CULTURE IN CALIFORNIA.

The evidence that cotton can be as successfully and profitably grown in California as in any State of the Union, continues to accumulate from various quarters, and the most experienced and reliable authorities. Annexed will be found a few extracts from a letter lately received from W. G. Allen, Jr., of Kern county, who has eighty acres of land in cotton there, and who is thoroughly informed on that textile and its culture. The letter is addressed to a gentleman who is a large land owner in the county named. We quote:

"The published reports of the cotton crops in this region have not been in the least exaggerated. I have *never* seen a more flattering prospect for a large yield. The fields now present a beautiful appearance. They are covered with balls and blooms. These have appeared in the remarkably short time of two months from the planting, whereas they do not appear in less than three to three and a half months in the most famous cotton regions of the South. This is a fact of great importance.

To thoroughly test the adaptability of various soils to the growth of cotton, I have planted five kinds of seed in different varieties of soil, planting each of the various kinds of seed in the different varieties of soil. The result of these experiments shows conclusively that alkali lands—large bodies of which have heretofore been allowed to lie uncultivated — can now be placed among the most productive in the State. The growth is more vigorous on rich lands, and the crops mature earlier and promise a much larger yield.

I regard the Valley of Kern as superior to the famous Cotton Belt of the Mississippi for the growth of cotton. This opinion is based on the greater yield per acre; the larger average per hand; the comparatively small expenditure of labor necessary to keep a field free from weeds; rapidity of growth and uniform grade, as demonstrated by actual crops in this valley. California is the *only* country I know of that has ever produced an entire crop that has been classified by experts as of the highest grade, viz: 'New Orleans middling.'

I have estimated the cost of production of the present crop, from the time of planting to its delivery for shipment and use, and find that it will not exceed 13¼ cents per pound for the first year, which, because of clearing, extra culture, etc., is always much higher than in succeeding years."

This estimate (13¼ cents per pound) is much higher than Col. Strong's. It shows, however, that the writer has included every source of expense, and that he did not wish to underestimate the cost. "Fair middling" cotton was two or three days ago quoted in New York at 21⅞ cents per pound, to which if we add freight here, the total cost to our importers will not be less than 25 to 27½ cents. An English shipping firm here (Rodgers, Meyer & Co.) offer to pay 22 cents per pound for California cotton, of the grade which they lately exhibited in England. The home demand is so large, however, that all that we produce can readily be sold and worked up here, and at high prices. Thirty thousand pounds were raised in Kern county, in 1866, by way of experiment (which was even then in every respect satisfactory) and sold here at 31 cents per pound. All the signs now point to the addition of cotton to the staple crops of the State.—*Bulletin, Aug.* 19, 1872.

The Rains and Cotton Culture in Merced County.

The Snelling *Argus* of the 28th ult. contains the following:

The generous rains of the present week, by insuring large crops of grain upon the uplands, will have a tendency to encourage the culture of cotton upon our bottom lands. We are informed that a large amount of land upon the farm of H. F. Buckley & Brother has been let to tenants at $10 per acre for the next crop season, to be planted in cotton. The crops of the past two years, though looked upon as mere experiments, have proved so remunerative to those engaged in the business that many who have suitable locations will turn their attention to the production of the staple instead of corn and wheat. We look upon this as a most favorable change in the pursuits of our farming population, destined in coming years to cause our county to be densely populated and exceedingly wealthy, as the growth of cotton insures employment in the fields to a large number of workingmen throughout the year. Seed, of a good quality, can now be obtained here at greatly reduced prices, and the coming season thousands of acres of our rich bottom lands will be planted in cotton, instead of hundreds as heretofore.

Cotton in California.

The commercial editor of the New Orleans *Picayune* comments upon the results attending the cultivation of cotton in California, and predicts that the future "cotton belt" will include the region traversed by the Texas and Pacific Railway, and a large portion of this State. The climate of California, he says, is certainly well adapted for cotton culture. This plant flourishes best in dry weather. The rainy season of the Pacific Coast lasts just long enough to bring the young plant to a healthy condition.

The Merced *Argus* of November 25, 1871, published within a few miles of Major Strong's cotton fields, gives the final result of the experiment as follows:

The Merced Cotton Crop.

Col. Strong finished picking his crop of cotton on Wednesday last, and informs us that the result of the experiment sums up as follows:

The field of cotton consisted of fifty-one acres, measured, from which he gathered 74,450 pounds of seed cotton. Thirty acres of the field originally planted in cotton upon which he failed to get a stand, was plowed over and replanted with corn, which yielded 900 bushels, worth in the market about $1 50 per bushel. The cotton and the corn crop gathered from the eighty acres will sum up about as follows: Cotton, 74,450 pounds, at 6 cents per pound, $4,467; corn, 900 bushels, at $1 50 per bushel, $1,350—making the gross proceeds amount to $5,817. It seems to us that this ought to convince all of the value of Col. Strong's experiment, and to induce all who have suitable land to enter into the business of cultivating the staple upon a large scale. The cotton is of excellent quality, being remarkably white and clean, and totally free from stains of any kind. The lint is fine, silky, and is sufficiently lengthy to bring it up to a high grade, ranking perhaps, as "good middling." Col. Strong is busily engaged in making his arrangements for pitching a crop for the next year upon lands owned by Mrs. Stockard, near Hopeton.

The Visalia *Delta* says:

The success of the last year's crop has been such as to encourage a party in San Francisco to commence the manufacture of this staple. Our farmers will do well to give it their attention. Herewith we present a statement which we believe may be relied upon, and which gives great promise of high profits. Here it is:

"Crop of Turner & Helm, Mariposa Creek, for 1872. Cost of preparing, planting and cultivating:

Twenty acres at $8 25 per acre	$ 165 00
Picking 14 bales at $9 per acre	380 00
Twenty bushels seed at $2 50 per acre	50 00
Ginning and bailing at $8 per bale	112 00
Total	$ 707 00
CREDIT.	
By 7028 lbs lint cotton. 14 bales, at 20 cts. per pound	$1,405 60
462 bushels seed, valued at $1 per bushel.	462 00
Total	$1,867 60
Net profit, $50 per acre	1,160 60

JUTE.

Through the kindness of Senator Cæsserly we have been placed in possession of a small quantity of jute seed, which we purpose dividing around among such of our farmers as will agree to give the growing of this valuable fibrous plant a fair trial, and will report to us from time to time the progress of their experiments. The seeds were imported from Calcutta by our Government, with a view to introducing the general cultivation of jute. The expenses attending the cultivation of this plant is but little greater, if any, than wheat; the ordinary yield is 550 pounds of fibre per acre, and it readily sells at from six to seven cents per pound. It will be seen that it is a far more lucrative crop to grow than wheat.

"It is sown broadcast, preference being given to the moist high ground," and in India is planted in March or April. In our climate we think the seed should be sown fully a month earlier. "It is allowed to grow three or four months, and is cut when it has attained a hight of seven and a half to twelve feet. The time chosen for cutting is just after the flowers have turned to seed, and before the seeds begin to ripen." It requires no costly machinery to remove the fibre, the stalks being merely thrown into a pool of dirty water until they rot, when they are removed and the bark stripped off and dried. A comparison between jute and cotton shows that the former can be cultivated and placed in the market at one-eighth of the cost of the latter while it sells for one-fourth of the price. Jute enters extensively into the manufacture of bagging, carpets and coarse cloths; articles largely used throughout the country. Nearly five and a half millions of dollars worth of jute in various forms were imported during the fiscal year ending June 1st, 1871, and the demand is steadily increasing.

No branch of agriculture offers so fair a field for the intelligent and industrious American farmer.

We have been assured by those who are competent to speak—having resided in India and seen the plant cultivated—that the soil and climate of this valley are peculiarly suited to its growth.

We have about four pounds of this seed. This we desire to divide into four different lots. Farmers desiring to test jute culture will please address us immedately.—*Fresno Expositor, Jan.* 8, 1873.

FOR FARMERS TO THINK ABOUT.

If it be true that a reliable market will take jute fibre at ten cents per pound, and that suitable lands in California will produce 3,000 pounds and perhaps 4,000 pounds to the acre (say $300 to $400 per acre), and that the cultivation is inexpensive, the conclusion follows that those farmers who earliest realize that these are facts will be able to turn their knowledge to handsome pecuniary account. The Department of Agriculture at Washington has carefully collated the evidence, based upon experiments which are much more numerous and extensive than is generally understood, which are believed to establish the above conclusions. The cost of his grain sacks is a serious tax on the California farmer, sometimes equaling the amount of his profits on a crop ; if it be a fact that it is within his power to raise his own sacks —to raise the material at a profit that will pay for his sacks without sensibly diminishing the amount of his grain profits—the sack tax disappears. The Department of Agriculture has been at the pains to collate the essential facts concerning the jute product and consumption of the world.

Twenty-seven years ago, the question in Dundee, Scotland, was, whether there was any value in jute. To-day the export from Calcutta is three million bales per annum. In 1854, the import at Dundee was 16,590 tons ; in 1872, the import was 96,000 tons. Of this import California paid for the manufactured product in grain bags of over 12,000 tons. The usual market price of jute at Boston, the principal American port of importation, is 10 to 13 cents, gold. The samples received there from the Department of Agriculture, grown in different Southern States last year, are pronounced "very superior," and quoted at two cents per pound above the price of average India. Mr. Thomas H. Dunham, to whom the samples were forwarded as an expert, writes to the Department:

"My advice to you is, leave no step possible to push the jute growth. Beyond and above all obstacles, push it on. The country will sustain this to any extent. The motive is greater than you have any idea of. The moment you get the growth started you will be fully assured, as capital will follow quickly, as in cotton. Suppose it were a new growth of cotton, no one would doubt the success or the aid needed. Our growth of jute will nearly equal half the cotton crop. We can cut off India supplies as we have done in cotton."

After an examination of what has been done during the last season at the South, Mr. E. H. Derby, the eminent industrial writer, says:

"I am convinced that the rich lands of Florida, Louisiana, Texas and Mississippi will, with fair cultivation, yield 3,500 pounds, or ten bales, of fibre to the acre, in place of one-tenth of that amount of cotton. I am convinced, also, that it can be produced at less than one-tenth the cost of cotton; that the caterpillar will not touch it, and that if planted around the cotton-fields it may possibly protect them from that voracious insect. I am also led by my letters to hope that it will attain to its full growth in three to four months, and that the same field may yield two crops in one season. I have just returned from Scotland, where I visited jute factories in the flourishing city of Dundee, where the import and manufacture of jute is making wonderful progress."—*Sacramento Record, Feb.* 15*th*, 1873.

Jute seed will be planted this year, for the first time in California. It yields eight or ten times as much fibre per acre as cotton; the expense of cultivation and preparing for market is less, and the price per pound is from 60 to 70 per cent. less. A jute company has been formed in this city, and it will supply seed to applicants.—*Alta, Feb.* 3*d*, 1873.

THE TOBACCO INTEREST.

Since the obtaining by Mr. Culp of his patent for the new process of curing and manufacturing tobacco, inquiries are pouring in from all portions of the country in regard to tobacco culture in California and the nature of his process. The two companies to which Mr. Culp has assigned his letters patent, have issued a circular, embodying the principal features necessary to be known in regard to the advantages of California as a tobacco growing State, from which the following is condensed by the Gilroy *Advocate :*

The climate is especially adapted to the growth as well as to the manufacture of tobacco. The rain falling through the winter and spring thoroughly saturates the ground and leaves moisture enough to complete the growth of the plant, while the summer and fall weather is warm and dry, and no rainfall ever interferes with the cutting or curing of the crop. Snow never falls in the valleys, the ground is never frozen, and in Santa Clara Valley (a fair average of the climate of the State) the last frost in the spring, injurious to the plant, comes before the 15th day of April, and the first one, in the fall, seldom comes before the 15th day of November, thus leaving seven months in the year certainly free from this enemy of tobacco grower, while frequently seasons are so mild that plants will grow all the year. The frosts that come do not interfere with planting the seed at any time during the winter, the slightest covering over the beds affording ample protection against its attacks. This year the two companies had more than half their beds sown in January. The evenness and warmth of our summer and fall atmosphere greatly facilitates the curing of the plant, and a certain crop and one uniform as to quality, is assured one year with another.

The soil in the State is almost virgin, and we have hundreds of thousands of acres of choice tobacco lands untouched by the plow, which are not excelled in any part of the world for richness and fertility. Mr. Culp has grown tobacco in one field in Gilroy Valley for twelve successive years, during which time he used no manures, never failed in obtaining a fine crop, the last one was as abundant and of as fine quality as the first, and the field is apparently as productive to-day as when the plow first turned it over ; and it is but a fair sample of our bottom lands and alluvial soil. Another generation will occupy our place before the choice lands of the State will require manures. Of Havana tobacco 1,500 pounds per acre is an average year's production. The plants produce three crops during a season; the suckers shoot up from the roots as soon as the stalk is cut, which rapidly mature into nearly as fine plants as the originals. The rapidity of the growth of this species of tobacco is marvelous. Last year, on Mr. Culp's ranch, in twenty-six days from the time the plants were set out they attained a height of five feet, had matured, and were being cut and placed in the curing-house Of the other species of tobacco 2,500 pounds to the acre is an average yield, and favored localities will produce a much larger quantity.

The yellow jacket is the faithful ally of the tobacco-grower in Santa Clara Valley, and, we believe, throughout the State, and he so carefully scrutinizes the plants for tobacco worms (which he immediately kills when found) that scarcely one escapes his vigilance; and Mr. Culp, in fifteen years' experience in growing tobacco in this valley, has never expended a dollar for labor to destroy the worm. Thus it will be seen that a much larger yield of tobacco can be obtained in this State than elsewhere, and that the cost of manures and killing the tobacco worm—the two heaviest charges tobacco-growers have to meet in other States—here do not enter into the expense account at all.

The Havana, as well as the Connecticut seed leaf, Orinoco and Florida tobacco produced by Mr. Culp, we claim, are superior to any produced elsewhere, and in this opinion we are sustained by the best judges of tobacco residing in the State.—*Bulletin, March* 17*th,* 1873.

TOBACCO CULTURE.

J. R. Culp, of Gilroy township, has demonstrated to the entire satisfaction of experienced tobacconists, the feasibility of growing and curing tobacco in this country, which is but little if any inferior in quality to that grown on the Island of Cuba. In fact, cigars made from this tobacco have deceived the best experts in that line, as was demonstrated a few days since on the occasion of a visit of a number of San Francisco tobacconists to his works. As we stated, some time since, in describing Culp's tobacco works, he claims by his process of curing—for which he has obtained letters patent—to accomplish for tobacco the same results as are produced by the hot, moist climate of Cuba. In other words he holds the only difference between the tobacco of California and that of Cuba, is the excess in the former of nicotine and other volatile oils; and that by this method of curing he expels those obnoxious oils. The results he has obtained fully confirm this theory.

By this process of curing the culture of tobacco can be made immensely profitable in this country, where the soil is adapted to its growth. Mr. Culp's last year's crop—some twelve thousand pounds—for which he has been offered fifty cents a pound, cost not to exceed three and a quarter cents.

We do not know what price Mr. Culp would ask for the right to use his process for curing the tobacco; but we presume it would not be such as to be burdensome upon the producer. The profit is so immense that the producer could well afford to pay liberally for the royalty. The whole secret of curing could be acquired in a short time by any one of ordinary "gumption."—*San Jose Mercury.*

TOBACCO.

Cotton has been King, so was wheat, but tobacco is now King in this section. Active operations are to be at once commenced here for the establishment of an extensive factory. In this issue will be found an advertisement calling for proposals for the immediate erection of ten buildings, to be each forty feet wide by one hundred feet long, one half the number to be completed by the first day of May, and the remainder by the first day of June.

The American Tobacco Company and the Pacific Tobacco Company propose to put in 200 acres each of tobacco this season, with the intention of raising at least one million plants. The companies have already seeded a number of acres at San Felip, and the operation of seeding about forty or fifty acres was commenced on Rosanna street, between Fourth and Fifth, in this city, this week. Each company is to pursue different branches of the business —one planting for chewing and the other for smoking tobacco.

Last Sunday Messrs. Zook & Hoover, of this place, sent a small quantity of the weed to a tobacconist in San Francisco to be manufactured into cigars for their own use. On Thursday the manufactured article was returned, and we had the pleasure of testing some of the samples. Although not claiming to be a connoisseur, our taste is sufficiently developed to discriminate between a good and a poor article. The cigars, fresh from the hands of the maker, smoked as free as though tempered with the improving attribute of age, and emitted an aroma most deliciously sweet. A letter was received from the manufacturer of these cigars, highly complimentary to the quality of the weed, and stating that himself and foreman contemplated a visit to this section shortly for the purpose of purchasing several thousand pounds of the article.

Cigars have been manufactured from tobacco cured by the Culp process for something like a year, which have been tested by the very best of judges, and all express the same opinion—that they are equal to the best imported Havana.

That tobacco growing and its manufacture is destined to become one of the most prominent and important industries of California there can be no doubt, and Gilroy especially will reap immense benefits from this source. With a soil most admirably adapted to the cultivation of the plant, and a climate equally favored for its curing, there is no obstacle in the way of its becoming our chief staple.—*Gilroy Advocate, Feb. 7th,* 1873.

HOP CULTURE.

Several years since many of our farmers who own bottom lands, entered into the cultivation of hops, in some instances, largely. At first the experiment was a success, but the coming seasons brought reduced prices, and in a great measure the cultivation of this plant was abandoned. The price at which hops are now quoted (30c. per ℔.) shows conclusively that had those faint-hearted persons continued their stands, they would have reaped a golden harvest this season. The simple, plain facts about hop raising are these: There is no surer crop grown, nor one more likely to yield a certain profit, considering one year with another. True, the price fluctuates, and so does the price of wheat, or barley. There has been no season since the first experiments in hop culture were made in this State, save one, but what a fair return would have been yielded for the investment to those engaged in hop culture. And this year the prices are such that a good yield of hops is more valuable to the producers than forty bushels of wheat per acre at two cents per pound. Of course there is plenty of lands on which hops will not grow, to any amount, without irrigation. To such lands we do not refer. But the bottom lands of the State, a portion of which is not fit for grain or garden land, is just what is needed on which to grow a luxuriant growth of hops. When once planted, the vine grows steadily on, like the grape, yielding its returns year after year, without further trouble, excepting that necessary to cultivate the land, and keep it free from weeds. The crop is sure, there being no blight or disease to affect the vines as far as experiments have tested the matter. There are thousands of acres of our low lands, unfit for grain or vegetables either, which could be made highly remunerative, if planted in hops. Every indication points to the fact that the price of this article will not be much if any lower than it now is for years to come. On the contrary, the chances are in favor of the rates being increased. It would be a wise move on the part of those owning bottom lands, to plant out a few hundred or a thousand hop vines and test the matter thoroughly. In case of another dry season they would have one crop which would be sure of returning a fair profit on the money invested.—*Marysville Appeal, Oct. 5th,* 1871.

HOPS PAY IN CALIFORNIA.

H. W. Coe has sixty-three acres of hop-vines, one mile outside of San Jose, on the New Almaden road. They average eight years growth. They are on the Guadalupe Flats. They yield 800 to 1,000 pounds cured hops per acre. They are never damaged in harvesting; not even slightly discolored. The least imaginable aid from fire serves to fit them for baleing. The value varies; about forty cents a pound is a safe average estimate. The hop vineyard is good for many years without renewal of plants. In this respect the hop resembles the grape-vine. Its tap-root goes down to water, and it is safe against a casual year of drouth.

Mr. Bates took a ten years' lease of this hop-vineyard in October last, for which he pays $7,000 a year.

Hops pay the first year. If you give the bearing vines, which are of the lady gender, what a Mormon would call a reasonable number of gentleman-vines, say ten ladies to one gentleman, you will get a paying harvest; and, in the second year, if the season be propitious, your harvest will be equal to the year following. Heretofore, California hops were not in favor. Our own brewers used, in great part, European hops—dirty, discolored stuff—under the impression that ours were too strong. This very curious conceit is now, happily, dying out. San Jose hops sent to England in 1871 fell into intelligent hands. The market reports speak of the "strength," as the great value of California hops. It needs only judgment in the use of them.

The hops of New York State are greatly superior to English hops when not damaged in harvesting. Yet the hop circulars now quote our hops at five cents a pound over the choicest European production. Hops are so subject to damage in Europe, and even in York State, that occasional seasons give ours a very great advance in price. Three years ago Mr. Coe got fifteen cents a pound extra for two hundred bales shipped to New York. Now there is an eager market in New York for California hops; and it is in no danger of being overstocked.

Is it not a want of sound judgment to say we can't make ale of better quality than we get from England, regardless of the notorious fact that we have better barley, better hops, and equal brains for manufacture?

How to Plant Hops.

Set out the plants nine feet apart each way. For every lady plant, which alone bear the fruit we want, set out one male plant. Let these be in every alternate row. Observe the course of prevailing winds, and so arrange your males that every lady plant may receive a touch of the male polan.

The cost of your plantation will be about as follows per acre: Preparing the soil, $5; cost of plants, $6; cost of planting, $3; poleing 1,800 vines with willows, $20; cultivation, $6. Total, $40. Dry-house and kilns cost, say $4,000; one man picks 50 to 75 pounds a day, and he can dry as fast as 200 men can pick.

When once established, a hop vineyard carefully pruned and tended, improves by age from year to year like a grape vineyard. —*Alta California, April 13th*, 1873.

CASTOR BEANS.

The culture of the castor bean, if pursued by some of our farmers, would be found quite a valuable crop. The oil manufactured from these beans, besides being used medicinally, is held in high esteem as a lubricating oil. The beans always command a good price and meet with ready sale. There is now on this coast, at least one establishment which is engaged in the manufacture of vegetable oils. The castor plant, it is stated by those engaged in their culture, will yield from two to five hundred pounds of beans per acre and the market prices at these figures make crops more valuable than wheat. The plants should be at least five feet apart for convenience in gathering. Irrigation is desirable to make the plants thrifty. In most countries the castor plant is an annual—requiring to be planted every year—but in this locality it becomes perennial, assuming the form of a tree, the frosts of Winter not being sufficient to injure the plants. Hence a person engaging in their cultivation in this section would have the advantage of making one seeding last for a number of years, at least, and would give a proportionately long bearing season, as the beans would commence ripening on the old plants much sooner than on the young plants. These advantages are greatly in favor of any one engaging in the culture of this plant in this region. Let some of our farmers try a few acres of castor beans. It won't cost much to try the experiment.—*Fresno Expositor, January*, 1873.

BEAN CULTURE.

A writer in the *Overland Monthly* for October, states the cost and profit of bean culture in Pajaro Valley, Monterey County, on land leased at eight dollars per acre—a remarkably high rate—based on five years experience, as follows:

Plowing three times	$ 4 50
Seed	90
Hoeing and weeding	2 25
Threshing and cleaning	2 00
Sacks	2 00
Hauling to market	2 00
Rent	8 00
	$21 65
Interest	3 90
	$25 55
Receipts, 2,000 lbs at 2¼c	45 00
Profit	$19 45

It is the custom among orchardists, particularly in Santa Cruz and Los Angeles, to take a crop of beans from the spaces between the rows in young orchards. The ground is cultivated until after the rains have ceased and it is certain that the weeds are destroyed, when beans are dropped in the furrows made by shallow plowing, and turned under. The crop matures quickly, the ground is kept in good condition, and the crop is reckoned as profit in addition to what the trees may produce.

SILK CULTURE IN CALIFORNIA.

What a glorious consummation it would be if the immense sums of money that are sent abroad every year for the purchase of foreign silks could be kept at home, by the substitution of our own product! And why not? We have the best climate in the world for the silkworm, and as far as the experiment has been tried, the production of silk in California has been a complete success. The southern section of the State, where the want of rain is liable to interfere with the perfection of annual vegetation, is admirably adapted to the growth of the mulberry and other trees, the roots of which strike down beyond the reach of the drouth. We notice that a company has been formed for the *manufacture* of silk from the raw material, which is to be procured from China and Japan. This is very good as far as it goes; but we want something more, and that something is the production of the raw material at home.

The mulberry plantation of S. Brannan at Calistoga contains one hundred acres of land, and the trees are placed twenty-four feet apart, so that in two years it may be set down as the finest and largest plantation in California.—*Resources of California*, 1872.

THE RAMIE PLANT.

In several parts of the State ramie is being cultivated with great success. Mr. George French, of San Francisco, has probably gone into the business more extensively than any one else. His fields are in Alameda county, not far from Haywards, where the plant flourishes in full vigor. Mr. French proposes, if the fiber is raised in sufficient quantities, to erect suitable machinery for working it into fabrics.

Now, in our opinion there is no county in the State better adapted to the growth of this textile than Merced. Let us see what are the inducements for raising it. The fiber sells in England at this time for $240 per ton of 2,000 pounds, or eight and three-quarter cents per pound. The plant can be propagated either from the seed or from cuttings, planted in loose earth. The stalk grows in Louisiana from four to seven feet high, and yields three or four cuttings annually. In California they would probably do much better than that. No replanting is required. The same stalks serve for an indefinite number of years, and although the plant may be blighted by frost, it springs up again. After the plant attains vigor, it subdues weeds and all other kinds of contiguous vegetation.

The ramie plant is a nettle, or Chinese grass, and grows spontaneously in China, British India, Java and other Eastern countries. Its commercial fiber is the inner bark or stem, which, when bleached, presents a brilliant, pearl-white luster. It is stronger and more elastic than either hemp or flax, which it somewhat resembles, and may be spun into fine yarns, suitable for mixing with wool in the manufacture of delaines, worsted or other light fabrics which will surpass the finest linens in beauty, strength and durability. It has also a felting quality superior to either fur or wool. Added to all its other excellent qualities, the ramie is a hardy plant, that needs but little care, and is a sure source of profit. The plants can be procured in San Francisco, and we recommend our farmers to procure them, in at least small quantities, and give them a trial. It has been predicted that ramie cultivation is to become one of the leading agricultural industries of the State, and we want Merced county to be amongst the first to raise the plant, and offer it, along with her cotton, as an inducement for the erection of those factories which we hope some day to see a prominent feature of her domestic wealth.—*Merced Tribune.*

Ramie on Twitchell Island.

The San Francisco *Bulletin* of December 27th said:

Geo. D. Roberts is about planting a large tract of land on Twitchell Island, in Ramie. The same gentleman planted in April last a number of plants on this island, from which he obtained two crops; and the result was so successful that he determined to cultivate it on a large scale. The cultivation of jute, flax and ramie will in time become one of the principle industries of this valley, for it will thrive here to perfection, and is in great and increasing demand for grain sacks, for various kinds of textile fabrics, paper and many other purposes.

Sugar Cane.

The Anaheim *Gazette* has the following:

Mr. R. P. Boswell has a fine hill of sugar cane at his residence, near Anaheim, which is now about 8 feet high.

Sorghum.

The Monterey *Republican*, in December last, said the San Felipe sorghum mill was then turning out 400 gallons of excellent syrup daily and found ready sale for it.

Many fields of sorghum were reported, and syrup was made from it in Sonoma, Los Angeles and Santa Barbara counties. —*Alta.*

Potato Culture—Cost and Profit.

A writer in the *Overland Monthly* for October, 1870, stated the cost and profit of potato culture in Pajaro Valley, Monterey county on land rented at a remarkably high rate, the estimate being based on five years' experience as follows:

Plowing three times	$4 50
Planting	75
Seed	3 00
Hoeing and weeding	1 00
Digging	12 00
Sacks	12 00
Hauling to steamer	15 00
Rent	8 00
	$56 25
Interest	10 12½
	$66 37½
Receipts, 15,000 lbs at 75c ℔ 100	112 50
Profit	$46 12½

Of course the owner who owns the land, and is not in debt, has neither rent nor interest to pay.

Growth of the Eucalayptus tree.

A writer in the *Rural Press*, who dates his communication from D. D. & B. Institute, Berkeley, gives some interesting facts in reference to its rapid growth. He says:

I saw a few days ago a notice in one of the daily papers, taken from an Aspinwall paper about some trees there which in two years time from seeds had obtained a height of twenty feet. Now that is nothing very remarkable for a tropical climate. California can beat that easily enough. There are blue gum trees growing on the hillside, just two years old from seed, which now stand 22½ feet high; they were set out in April, 1871, when only four to six inches high, and never irrigated. I do not doubt but there are still higher ones of the same age in other places. It speaks well, indeed, for the immediate benefits to be derived from a Eucalyptus plantation. Several of them are fifteen inches around the body, and all stand well so far, without artificial supports, though much exposed to the north and southerly winds. Distances apart, ten feet. For regular forest they may be only from four to six feet.

Osage Orange Hedge.

Eds. Press: — I notice an item in the *Press* of the 9th instant., headed "Osage Orange Hedge." Having been engaged in that business the last four years, I feel induced to give a few thoughts upon the subject to be taken for what they are worth.

I have about 300,000 plants on hand grown from seed planted last February in nursery, and are of proper size for setting this winter. I have also sixteen miles of hedge growing in Solano and Yolo counties, the oldest is four years old and is a good fence, nothwithstanding two dry seasons. A fence can be made of it in from three to five years on any soil that will produce grain. I have never seen a cutting grow under any conditions and I have given it some careful attention.

The seed should be planted in nursery and transplanted at one year old. The reasons for this are obvious; first, in order to insure success the line of hedge must all be started at the same time and with plants of equal size and strength, if not the weak plants will in a few years die out, leaving holes in the fence. This can only be done by assorting the plants and planting those of equal sizes together. Second, the uncertainty of the seeds growing leaving places without any plants, others too scattering and some too thick, making the difficult task of thining and replacing, it is very difficult to thin where they are too thick and leave plants at uniform distance, and not disturb those to be left.

The result is still more difficult; suppose you wish the plants in the line of hedge to stand at a distance of eight inches apart, your seed has grown leaving irregular spaces to be filled, and where you fill between two plants of one year's growth the strong plants will sap the small ones and finally die out.

G. W. Frazer,

Vaca, Solano Co., Nov. 15th, 1872.

Trimming Hedges.

The other day we saw a beautiful hedge and upon enquiring about the care and process of trimming learned as follows: It was osage orange planted four years since without extra care. For two years it has been proof against stock and now the rabbits who come in at the gate must go out at the gate. The owner has got several that were trapped by the hedge. He trims the hedge in the summer time when the wood is green and cuts easily. Then one chinaman with a cord knife trims 60 rods on both sides and on top each day. Hedge plants for fencing can be had at the rate of $90 per mile. To trim and keep in order a mile of hedge established on this plan will cost from $5 to $6 per year. For private grounds it is a thorough protection, as boys and men must have ladders to climb it. It can be made a great ornament, a protection from wind and dust, a thoroughly secure enclosure, a supply of firewood and lumber, or a nuisance according to the object desired and the judgment and care exercised over it. The objection that it saps the strength of the land and is expensive to trim may both be avoided by trimming with a corn knife or sickle when the wood is green and keeping it trimmed.—*Rural Press*, Oct. 5th, 1872.

SEMI-TROPICAL FRUIT.

Colonel E. J. C. Kewen, of Los Angeles, has on his place 4,000 semi-tropical fruit trees of all kinds. Many of them are already in bearing. He expects in five years to be in receipt of an annual net income from these trees of $50,000. We would also state that a gentleman in this city has in his private garden now growing, 3,000 year-old orange trees, grown from the seed, planted one year ago in his open ground, and replanted this spring. They are now growing finely. He has also 1,500 cuttings of the lemon, set out this spring, and doing finely. Upon these he proposes to bud the orange this fall, and thus gain three or four years in time on his orange crop. The gentleman we speak of says he is thus providing the way for a fortune for his children. He is looking ahead, as we all should do.—*Sacramento Record, April* 23*d*, 1873.

The Banana in Los Angeles.

The Anaheim *Gazette* says:

We have been shown two magnificent specimens of the banana tree, grown in the nursery of T. E. Schmidt. One of the trees has a stem about 18 inches long, which is hung with a finely developed bunch of bananas, numbering about forty in the cluster. The other tree is partially in bloom, but it is fast changing its flowers into fruit, and will, ere long, prove more productive than the one first spoken of, as it contains at present almost as many bananas, besides a large quantity of buds. We understand that this valuable and delicious article of fruit was planted last year, and is, therefore, only a little over a year old when it commences to bear. Schmidt has, in cultivating this new fruit, exceeded his most sanguine expectations, as he did not anticipate such successful results from what he designed only as an experiment. It is evident, from the above facts, that all tropical fruit will propagate and flourish here as luxuriantly as in their native clime, and that, too, with little trouble or expense. We are reliably informed, by an old Brazilian, that this specimen of the family of the plantain tree is fully as fine in growth and beauty as ever raised in the region of the equator. We believe that these banana trees are the pioneers in this country, and challenging competition — this side of the San Gabriel, anyway.

The Anaheim *Gazette* reports two banana trees in that place, planted last year as an experiment, now bearing fine bunches of this delicious fruit. Whatever will grow there will grow here, and if the fact is once established that the banana will grow in Southern California, all our farmers should plant it as soon as they can obtain the necessary information and means of propagating it. It is a principal article of food in many inter-tropical countries, and there is no food plant known to man which will produce anything like the same amount of sustenance, on equal portions of land, with as little labor. Wherever this fruit grows, the pine apple and bread fruit will also flourish.—*Kern County Courier*.

The Anaheim *Gazette* notices that, on a banana-plant in that town, a bunch of the fruit is forming, with every prospect of ripening. Only a few weeks since, we reported that a pine-apple had ripened in the open air at Los Angeles. At the same place, last year, one of the date palm-trees bore fruit, and we presume is bearing this year again. A strawberry guava-tree in San Francisco bore fruit last year. These facts are of great interest for the agriculture of the State. They are the beginnings of the cultivation of the tropical fruits; the semi-tropical fruit-trees we already have in considerable number.—*Alta*.

Among the tropical and semi-tropical fruits which have been successfully tested but are not yet extensively grown in this State are the pine-apple, banana, mango, cocoanut, plantain, loquat, guava, date and the opium poppy.

Date-palms are growing in Santa Clara Valley, and have not been seriously injured by the frosts of two winters.

FARMING IN SOUTHERN CALIFORNIA.

Eastern people visiting here express their surprise at the high price of land. That from $200 to $500 per acre should be asked for improved lands, to all appearances no better than lands that can be obtained in the Eastern States for $20 to $50 per acre, is something they cannot comprehend. And yet the reason why there should be such a difference is plain. For instance there are the corn lands of El Monte and Los Nietos, which yield from 90 to 120 bushels per acre.

This does seem to be an extravagant estimate when compared to the yield of the best corn lands in the Eastern slope of the Rocky Mountains, where thirty and thirty-five bushels per acre is considered a fine crop. Unimproved land adapted to the culture of the orange and the lemon can be obtained at $30 per acre. One man can efficiently care for ten acres, at a salary of $40 per month, or $500 per year. Two-year old trees are now selling in the nurseries at one dollar each. In many of the older orchards in the county, the trees have been planted twenty feet apart.

It is now conceded that more space is required for the trees, and new orchards are being planted with the trees thirty feet apart, making the total cost of land and stock to be $800. The total outlay required for the first year aggregates, with an allowance of $100 for incidental expenses, $1,400. In at least six years from date of planting the trees will commence bearing, producing a crop sufficiently large to pay current expenses. The total investment up to that date, including cost of water, etc., will have amounted to, say, $5,000.

Two years later trees will yield a crop worth, at present prices, ten dollars per tree, or $500 per acre, thus paying off the entire principal. In the following year, an increase of one-half may be expected in the crop, thus giving the owner the handsome return of $7,500. This is no imaginary picture. There are innumerable instances in the Los Angeles and San Gabriel Valleys, where these estimates have been more than realized. Orchards containing trees from twelve to fourteen years old, return to their fortunate owners from $1,000 to $1,500 per annum.—*Rural Press, Oct.*, 1872.

A gentleman named Wolfskill, in Los Angeles County, has twenty acres of orange-trees, which first bore fruit in 1866. The yield in that year was 43,000 oranges; the next year it was 212,000 ; the next, 600,000; and last year he realized $15,000 from the sale of the crop. The twenty acres contain 1,600 trees.—*Resources of California.*

ORANGE CULTURE.

The Los Angeles *Mirror* gives the following: "Orange-trees, to grow with thrift must have some protection from the occasional cold frost and hot sun, when young, and in many localities require protection from the wind, even when grown to maturity. The means of irrigation must also be at command, although when once fairly growing and well attended, but little water is necessary. They sometimes commence bearing at seven years old from the seed, and after ten or eleven years of age will yield a profit, increasing annually for an indefinite length of time. As they are slow coming to maturity they are long-lived trees. The one at San Gabriel Mission, which yielded over six thousand oranges in one season, being in the neighborhood of ninety years old. One man with a team can give all the necessary attention to almost an unlimited area of land in orange trees, and the number of trees to be grown to perfection varies from sixty to over a hundred to the acre, according to the richness of the soil and the judgment and experience of different tree raisers. One gentleman sold from half an acre of trees in this city the present year, $1,200 worth of oranges. Another pointed out a tree last year, aged eleven years, which he raised from the seed, and from which he had at the time sold twenty dollars worth of oranges that season, and several hundred still remained on the tree. Still another has a tree from which he got over twenty dollars worth of fruit the season it arrived at the age of ten years. The above might not be safe instances upon which to base calculations for a general average of crops, but from the estimates of experienced orange raisers in different sections of the country, it is within all reasonable bounds to estimate $1,000 as the yearly income from each acre of orange trees after they have arrived at the age of fifteen years. The product will be oftener above than below this estimate."—*Bulletin, March 7th*, 1873.

ORANGE CULTURE IN SANTA CLARA.

The orange tree is hardier than many people imagine. In this city during the heavy frosts of last week, when ice formed during the night in exposed places a half-inch in thickness, the orange trees, growing in the open air and unprotected, were uninjured. It is not the frosts that stand in the way of successful orange culture in this section, but the lack of sufficient summer heat. In the Sacramento Valley, where the frosts are much heavier than with us, but the summers much warmer, the orange has been found to grow to perfection. With a little extra care in the culture of the orange here, we believe like results could be obtained. The trees should be planted on the south side of buildings or high board fences. The soil should be well stirred around the roots of the trees, and the summer growth forced by frequent irrigation. By this method they will acquire a vigorous growth, which our severest winter frosts will fail to impair.—*San Jose Mercury, Dec. 12th*, 1872.

Oranges in Calaveras.—The other day Mr. Schlund gave us one of the finest oranges we ever saw, and informed us that he grew it himself. Mr. Schlund has some ten or a dozen trees in his garden, all of them bearing.—*Calaveras Chronicle, Feb. 15th*, 1873.

ORANGES AND LEMONS IN TULARE COUNTY.

A few days ago Mrs. Carrie F. Young called at our office and exhibited splendid samples of Oranges and Lemons grown by Mrs. J. A. White, (of course in the open air), in the foothills of Tulare County, ten miles east of Porterville. The Lemon seed was planted six years ago and the tree bore fruit three years after. The Orange seed was planted two or three years earlier, and the trees bore fruit when seven years old. The tree from which the sample was plucked, bore probably more than 200 oranges. The sample shown was eleven inches in circumference and would have been an inch larger in diameter if it had been allowed to mature fully. The Lemon was as large as any ever seen in this market, whether raised in this State or abroad. The seed was from a Sicily Lemon. The Orange seed was from one of the best Sandwich Island varieties, and the fruit fully equal to the original in size and quality.

These trees were planted and set out by the lady, the wife of the owner of the farm, and the irrigation and cultivation done by a China boy, under her superintendence, hired at $20 per months, who also performed other work. She has about forty trees growing, besides many seedlings.

We were also shown a fine Spitzenberg apple grown in the same garden. For apples of equal quality and appearance, the sale would be almost unlimited. The soil is a coarse granite sand. It is irrigated from a small spring, the water of which is collected in a reservoir and distributed as required about the premises. Every farmer who may settle in the entire foothill region of the San Joaquin Valley may adorn his home with Orange and Lemon trees, and besides supplying his own table with fruit, produce a surplus which will bear transportation to any part of this State.—*Resources of California, January*, 1873.

COMPARATIVE COST OF VINE GROWING.

A contributor to the *Overland Monthly* furnishes some interesting data about the comparative cost of making a vineyard in France and California:

Cost in France of an Hectare (2½ Acres) of Vineyard after the Seventh year:

Purchase of one hectare of land	$200
Expense of first year	200
" second year	100
" third year	171
" fourth year	229
" fifth year	120
(Besides $40, being product of vintage of fourth year)	100
Expenses of seventh year	30
(Besides 160, being product of vintage of the sixth year	
Total expense	$1,150

This estimate has not included interest, which would make $240 more. In the seventh year one hectare of vineyard has cost $1,390 or $556 an acre. After that year the cost for cultivation amounts to $35 an acre annually.

Cost in California of an acre of Vineyard after the Seventh year:

Purchase of one acre of land	$50		
Planting and cultivating, first year	30		
Cultivation, second year	10		
Cultivation, third year	10		
Cultivation, fourth year	12	Value of crop	$35
Cultivation, fifth year	15	Value of crop	42
Cultivation, sixth year	15	Value of crop	43
Cultivation, seventh year	15	Value of crop	66
Direct outlay	$157	Direct in'me	$192
Interest at 13 per cent. per annum on outlay	99	Int. a 12 pr.ct. on income.	52
Total outlay	$256	Total inc'me	$244

Leaving the actual cost of the vineyard in California after the seventh year at $12 per acre, against $556 in France, in spite of expensive labor and high rates of interest. The cultivation of a full-bearing vineyard is less than $15 per acre with us, against $35 in France, and our crops throughout the State, on an average, will be considerably over rather than under four hundred gallons per acre.

The writer, who is an experienced vine-grower and wine-maker, shows the comparative advantages of different methods of setting the vines. The old plan was to set 680 vines to the acre. The latter practice is to set from 1,000 to 1,800 vines on each acre.

The following are the average yields for the whole State, in these different modes of planting, when the vines are seven years old.

680 vines per acre	10 ℔s per vine,	6,800 ℔s grapes
1,000 vines per acre	8 ℔s per vine,	8,000 ℔s grapes
1,800 vines per acre	5 ℔s per vine,	9,000 ℔s grapes

The pruning of the vines cost about $4 a thousand; the hoeing and suckering about as much more. The cost of picking is set down at $1 25 per ton, and hauling a distance not exceeding five miles, costs about $1.

The average price of grapes is $1 per hundred pounds, delivered, and the gross income of a vineyard containing 680 vines would be $68. Deducting picking and hauling, $8, and cultivation $15, would leave a yearly net income of $45 per acre on an investment of $112 and interest up to the fourth year.

The estimate of profits is for the Mission grape. The net income from vines producing table grapes is fifty per cent. more. The difference for the last two years, has been much greater than this in favor of table grapes. The exhibits is, on the whole, a very encouraging one.

GRAPE CULTURE IN CALIFORNIA.

From report to the Senate of California, Feb., 1870.

The growing of the grape is not in conflict with any other branch of agricultural industry, but can be made auxiliary to nearly all other kinds of farm labor, as for example: if you raise grain, your seeding is over before the labor of pruning the vine commences, and at the time of grain harvest there is little or no work required in the vineyard; and if the cultivation of the mulberry and feeding the silkworm should prove a success in California, its prosecution will present no conflict with the vintage work. And in a country blessed with so genial a climate and fruitful a soil as California, where all these several branches of agricultural industry—grain growing, stock-raising, vine culture and rearing the silkworm—can successfully be blended together and practiced in the same district, skilled and willing labor can find an abundant field, with continuous employment, at remunerative wages the year round.

Our vintners have no motive for adulteration. The crop is always good; there is no lack of legitimate material; grapes are abundant every year. It is not with us as with European vine growers. There, one good, full crop, safely harvested, in five years, is a fair average for the last half century; while there has been no single year in which the grape crop has been a failure in California, since the introduction of viniculture here in seventeen hundred and forty—now more than a century and a quarter. Still further: while the European crop is always subject to rains, at the season of gathering, producing mold and rot in the berries, which transmit their offensive qualities through every stage of the products, California vine-growers enjoy an entire immunity from this evil, and hence can regularly and certainly produce a purer wine or brandy than is possible in the other case.

Summing up on this point, an experienced and intelligent Hungarian vine grower, after extensive investigations in our State, says: "Of all the vine growing countries in Europe, not one possesses the advantage of California; and I am satisfied that even if the separate advantages of these countries could be combined in one, it would still be surpassed by California when her resources shall be fully developed. Nowhere in France, the Netherlands, Holland, Rhenish Prussia, Bavaria, Nassau, Baden, Switzerland, Spain, Italy or any other country can be found wine more noble and generous than this young State on the Pacific is capable of producing. Nor has she ever been anywhere equaled in the amount of her vintage per acre, or the annual certainty of her crop.

MUSCAT GRAPES AND RED SOIL.

We have received a sample of the largest and fairest Muscat grapes of the season, from the vineyard of J. Rutter, of Florin, seven miles from Sacramento, on the line of the Western (now Central) Pacific Railroad, they being the second crop, and about the size of pigeon eggs. We understand they were grown on read soil, which produces immensely, and sometimes a third crop. The vineyard is about twenty-five acres in extent. Some three hundred boxes of these grapes will be sent East on Saturday in the new Davis refrigerator car, and will reach their destination, as has been tested, in the same condition as when placed on board. These facts, of the capacity of our red soil, the safe transportation of the grapes, and the prices they will command in the East, will open a new era for the viniculturists of the State. — *Sacramento Union.*

FRUITS FOR CHINA.

The Sacramentans have made arrangements to ship regularly to China such fruits as are called for—for the present it appears, apples and pears, While we are debating the profit of shipping fruits East, it is possible we are neglecting good bargains in the other direction. There are immense populations to feed to the west of us, and they have products to exchange as good and sure of sale as gold. This Asiatic commerce grows with us more slowly than it ought; but with steamer lines established to the Islands, to Australia and China, we must find at least as large a market there ultimately as at the East for our fruits, grain and metals. And if our fruit-growers cannot risk the shipment of green fruits by railroad, they may count pretty safely upon profit from dried and canned fruits. There is no need of waste, such as we have hitherto had to a vast amount.—*Bulletin.*

NEW VINEYARD PLOW.

J. C. Potter, of St. Helena, has shown the Napa *Register* a new invention of his, in the shape of a vineyard plow, which will recommend itself to our vineyard men and farmers generally on sight. It is so arranged that by changing three nuts the beam can be thrown to either side of the plow, so as to make the cultivation of vines and the hoeing and hilling up of corn or potatoes a very easy job. The handles are so arranged that they can be shut up on passing a tree without stopping the horse. The plow is the lightest we have ever seen, and runs straight, will stand alone, and not wear at the heal any faster than any other plow. The draft is lighter on account of its not going sideways, and altogether is a perfect gem of a plow.

Profits of Wine Raising.

One of the speakers at a meeting of the Mechanics' Institute, stated: "The vineyards of Sonoma produce 375 to 400 gallons of wine per acre, on an average; an acre of vineyard paying from $50 to $90 annually." The speaker was thoroughly conversant with the subject.

CALIFORNIA RAISINS.

The following article from the San Jose *Mercury* is applicable to our own county, and we commend it to the attention of our vine-growers:

C. D. Brooke, of Diamond Springs, El Dorado County, put up last fall 150 twenty-pound boxes of raisins. They were of the White Muscat variety of grape, and for size, flavor and general excellence are pronounced by all who have sampled them as fully equal, if not superior, to the best Malaga raisins of commerce. The entire lot was purchased by McIllriach & Barbour, grocers of this city, who have them for sale. Mr. Brooke says this quality of raisins can be produced and manufactured, and afford a reasonable profit to the producer, for ten cents per pound. They are sold at retail by the above grocers for sixteen cents, while the Malaga cannot be afforded in this market for less than twenty-five cents per pound.

Raisins, equally as good as these, have been manufactured in smaller quantities in this county, and there is no doubt the industry is one that might be expanded almost indefinitely. Our hill lands on each side of the valley are admirably adapted to the culture of the raisin grape, and especially of the Muscat, which is one of the best varieties for raisins. They grow in these hills in absolute perfection. No blight, mildew or frosts ever injures them.

If our vine-growers, instead of planting the Mission or California grape, for wine purposes—a grape, by the way, that is vastly inferior to many foreign varieties even for wine—would turn their attention to the culture of a few of the best varieties of raisin and table grape, with a view especially to the manufacture of raisins, we believe they would find it vastly to their advantage.—*Times, April* 2*d*, 1873.

California Raisins.

G. M. Jarvis, of the famous Vine-Hill Vineyard, has prepared and boxed, from this year's vintage, several thousand pounds of raisins, from the choice Burgundy grape, which surpass in flavor and excellence any brand of foreign raisins in the market. This is a new feature with the grape-growers of this county, and from the successful experiments of Mr. Jarvis this season, promises to become extensive and profitable. This luxury can now be supplied by the home product at a greatly reduced price, six pound boxes selling for one dollar and twenty-five cents. There is no reason why tons of superior raisins could not be prepared next year in this county, thus turning our valuable vintage into a more profitable and desirable account than wine-making.—*Santa Cruz Sentinel.*

FIG CULTURE IN CALIFORNIA.

The climate of central and southern California is so well adapted to the production of this favorite fruit, and such great success has attended the cultivation of the California varieties, as far as tested, that we cheerfully give place to the following from one of our exchanges:

"W. H. Haynie, at a recent meeting of the Sacramento Farmers' Club, gave his idea of the cultivation of the fig in California, in the following remarks:

"'The white Symrna fig could be grown and cured as well here as in Symrna or any of the countries on the Mediterranean. They can not be imported at less than about twenty-eight cents a pound in bulk, and there are millions of dollars' worth sent to the United States annually. We should and could supply the market. Fig trees ten years old would give on an average 150 to 200 pounds of dried figs a year, and two hundred trees could easily be grown on an acre—making for the acre 30,000 pounds—which, at ten cents a pound, would give $3,000.' On the same subject, J. R. Johnson said he had been raising figs and marketing them a number of years; he had twenty good trees over ten years old: they averaged him $10 a year per tree. Fig-trees must not be crowded; they do better standing large distances apart; and the limbs trimmed horizontally, cutting the top of the tree off. They would run in this way like a grapevine, and one tree made to cover a quarter of an acre. The Italians dry their figs on dry sand. This gives a uniform heat, and they don't require turning, the sand becoming heated. Almonds and other nuts could be made profitable to raise—the market was always good for these kinds of nuts."—*The West, May*, 1872.

Fig Trees.

A. J. Latten, of Alvarado has a fig tree in his yard that is remarkable. It is just one year old from the seed, and has borne one large and well matured crop of figs, and now has the second crop on it about half grown. It measured six feet four inches in height, and is one and a half inches in circumference at the but.—*Resources of California.*

The editor of the San Diego *Union* speaks thus of some late observations in Sweetwater Valley, ten miles from his town:

We saw fig trees ten feet high, with from twelve to sixteen branches each, which had grown from cuttings in twenty months; we measured a beet of five feet seven inches in circumference, and another of four feet circumference; we saw over twenty sweet potatoes, of from three to ten pounds weight taken from a single hill.

CHERRIES AND PEACHES.

At Vosberg's orchard, this side of Georgetown, there is a cherry tree from which Vosberg has gathered fifty-two gallons of fine ox-heart cherries in a single season, selling them readily at one dollar per gallon. Fifty-two dollars per annun for a single tree is pretry good, especially when the produce is sold at bed-rock prices, ain't it ?

There is a large peach tree in full bloom on Wilson's place, at the head of Cedar Ravine. Think of that, ye frost-bitten, snow-bound denizens of Minnesota, Iowa, New York, Massachusetts, etc.—a peach tree in full bloom in the middle of January, at an altitude of two thousand feet above the sea level !—*Placerville Democrat, Jan. 25th,* 1873.

The Cherry.

The cherry is a fruit that is receiving especial attention in California, and is being cultivated on a very extensive scale. Orchards are planted with thousands of trees each. The great perfection in which it grows and the abundant crops produced annually will make it a profitable fruit to cultivate, even if drying and canning should eventually be resorted to to consume the surplus crop. There are many of the bigaroon varieties, particularly the Napoleon, that I think can be shipped East successfully and profitably, which will make a market for a much greater quantity of this delicious fruit than if we were confined to the markets of California.

The cherry requires a dry soil. A sandy loam is the best, and particular care is necessary to protect the young trees from the hot sun after transplanting in this section of the country. I believe the Mahaleb will be found to be a better stock than the Mazard on which to grow the cherry in many localities, especially in uplands. Nearly all varieties attain the greatest perfection here with good cultivation.

The Plum.

The plum should receive particular attention with fruit growers in California. The tree is hardy, grows on nearly all soils and bears abundant crops all over the State, while in the Eastern States the crop is nearly destroyed by the "curculio" and "black nit." Many varieties can be shipped as far as New York in perfect safety. I have shipped the Washington, Yellow Egg, Coe's Golden Drop, and Coe's Late Red, that far without the slightest injury. For the different varieties of plums, particularly the prune varieties, dried, we have almost the whole world for a market, and no fruit can be dried with less trouble or more profit than the plum.

Peaches.

The culture of peaches should not be neglected wherever they can be grown successfully. The cultivation of the peach where they can be grown profitably is limited perhaps to a smaller portion of the State than any other kind of fruit. A rich, sandy soil is the very best for the peach. It can be grown throughout the Sacramento Valley, and in favored localities along the foothills, and in the mountains to great perfection and profit if within reach of our own markets. Great care should be taken to select varieties that are not troubled with the curled leaf, which seems to be the principal enemy of the peach in this country.

Apricots and Almonds.

The apricot is also a profitable fruit to grow wherever the peach succeeds, if only for drying and preserving.

The almond is but recently receiving the attention it so justly deserves in this country, as one of the most profitable trees for fruit growers to cultivate. There are some varieties grown nearly all over the State, and I believe there is no crop more to be relied on for profit than the almond. California ought to supply the market of the United States. Mr. Taylor, near Marysville, has recently planted ten thousand trees for himself of the Languedoc variety. That is the best variety, all things considered, that I have seen yet.—*C. W. Reed of Sacramento.*

THE OLIVE TREE.

This is among the oldest of cultivated trees, so old indeed that its native country is not definitely known; it is supposed to be indigenous to both Asia and Africa. The tree seldom exceeds twenty feet in height, is of a spreading habit, and very long lived. It is evergreen, but its leaves are a soft pale green; it is usually grown from cuttings, as this method perpetuates the same variety, though there are several distinct varieties, as among apples and pears.

We gave on page 57 of the present volume of the RURAL, an extended notice of the Olive as grown in California, the mode of culture and manner of expressing the oil, and preparing the olives for the table, which it is hardly necessary here to repeat; but to the process there given for extracting the oil on a large scale, we will add, that to obtain the very finest quality known to commerce as Provence oil, the virgin oil is expressed with great care from ripe fruit immediately after being gathered, and before the slightest fermentation has taken place.

The manufacture of olive oil is a very old practice, but it has undergone very considerable improvement of late years. By the introduction of hydraulic presses, the expressing of the oil is now much more rapid and effectual, and the injurious effects of incipient fermentation, or those attending the heating of the pulp, are thus avoided.

The olive is found at nearly all the old missions of Middle and Southern California, and its propagation might be extended largely, and with profit. We are indebted to Mr. John McComb for procuring the twig of olive from which we have made our engraving. It came from San Jose, where the tree seems at home as regards both soil and climate. In our illustration, both leaf and fruit are reduced to one-fourth the natural size.—*Rural Press, Dec. 7th*, 1872.

Olive Culture at Los Angeles.

At the Mission Orchard, Mr. Davies, its proprietor, has this year pickled about 800 gallons of olives. He will also make nearly 150 gallons of oil. The yield this season is much less than last; the same trees yielding nearly 1,500 gallons of olives in 1871 against 1,200 this year. As we have frequently stated, the orchard contains about 300 trees. This would give an average of four gallons of olives to the tree this season. The average yield last year was nearly twelve gallons to the tree. Mr. Davies thinks that the olives, like other fruit trees, require a rest, and that next year they will bear as abundantly as ever. The yield of this year is sufficient to pay handsomely. Mr. Davies has sold to Messrs. Saxton and Miles, of Anaheim, 4,000 cuttings. These gentlemen propose to go into the business of growing olives on an extensive scale on their ranch near Anaheim. —*Los Angeles News.*

Olive Culture.

The San Diego *Union* furnishes some interesting facts concerning the cultivation of olives in that vicinity. First, as to cost:

Five acres of land at $25 per acre...........	$125
Cost of erecting windmill and digging trench for irrigating..................................	200
Cost of setting out trees......................	100
Wages of one man to attend trees six months of each of first two years after setting out	600
Interest and contingent expenses...........	200
Total cost of five-acre orchard.............	$1,125

The profits are shown thus:

The average yield per annum of the Mission orchard trees is ninety gallons of green olives to each tree; with ninety trees to the acre (about this number are planted) an annual yield of 8,000 gallons is obtained. Allowing for one-third shrinking in drying, there are left 5,400 gallons of olives to be pressed, which will yield at the rate of one gallon of oil for every eight gallons of dried olives. At the present price of olive oil (from $4 50 to $5 per gallon), taking the lowest figure, the annual income from an acre of olive trees is found to be $2,812 50.

Almond Culture.

A few months since, inquiry was made in the PRESS for the Languedoc almond and no response obtained. We were in doubt whether the genuine variety was obtainable in this State, till a few days since, when we had the pleasure of an interview with Mr. N. B. Clough, who presented us with a sample of the true Languedoc almond, known to connoisseurs as "Prince's Premium."

They are a medium between the paper shell or Ladies' almond, and the hard-shell variety, but most of them can be crushed by the hand. They were of the crop of 1871, the shell bright and clean, the kernel full and of excellent flavor, being entirely free from the least bitterness, in fact as perfect an almond as can be produced in any country and worth 25 cents a pound in the market. These almonds were grown by Mr. B. D. T. Clough, of Washington, near Niles Station, Alameda County.

We were also favored with a small branch from one of his trees, full of leaves and almonds, of which we present an engraving in miniature and which is a good representation of the original, except that we could not find room for half the almonds—as compared with the leaves—that grew upon the branch.

It was early foreseen by the growers of the almond, that its commercial value would increase with the growth and extension of commerce and civilization, and the attempt to improve its quality has been the aim of culturists for more than four centuries. The result of these persistent attempts at improvement, finally culminated in the "Princes Premium," of Languedoc, France, as a variety unexcelled.

Mode of Culture.

Mr. C.'s method of culture differs but little from the usual routine adopted by others in the growing of stone fruits. The stones of the peach as well as the almonds themselves are planted in spring and cultivated in nursery rows the first year. The almond has grown as we have intimated on both peach and almond stocks. Early in September the seedlings attain sufficient size and are budded with the true Languedoc or other desired variety. The following spring they are headed down to the bud, and allowed to grow one season more unremoved.

They are then ready for transplanting in early fall, winter or spring, as the season may prove most propitious, and if a good growth has been made, they will be from three to seven feet high. They are then set in orchard form in well prepared ground at the rate of 150 trees to the acre, or 16½ feet apart. The ground is kept thoroughly cultivated, and almost any hoed crop except squashes can be grown between the rows at some distance from the trees without injury.

The tree requires but little pruning or trimming for four or five years; but when it ceases to make a strong lateral growth of limbs, heading or cutting back to promote a new growth, will increase the product as well as the size and value of the almond.

The Product.

This variety of the almond when grown on suitable soil and with proper cultivation will, at five years from the bud, yield at the rate of three dollars per tree, and at six years from the bud will yield $500 per acre. To those who think their best wheat land worth too much to plant with almonds, we would say—no wheat crop that you can raise will half equal the value received after the fourth year. There is a wide margin between wheat at one and a half cents a pound and almonds at twenty-five or even twenty cents a pound.

The almond crop can be gathered at any time almost, as best suits the convenience of the household, from September to January; we say household, because it is not unbecoming even to the women and children to engage in almond gathering as they would in the gathering of field and forest nuts in the older States.

Preparation for Market.

To those who are not familiar with the important process of fitting almonds for market, we give the process—called bleaching—as practiced by those who are in the secret, as they suppose, but which Mr. C. freely imparts. When the dried pulp or outer shell begins to open on the edges of the almond, the fog, dew or humidity of the atmosphere blackens or browns the shell, giving it a soiled and unmarketable appearance.

When this occurs it is only necessary to place the almonds, any number of tons of them, in any kind of a tight kiln, and subject them to the action of sulphurous gas, by simply burning a few ounces of sulphur within the kiln and allowing the almonds to be enveloped in the fumes for three or four hours. This effectually bleaches the shell of all stain without the least injury to the kernel and giving them a bright, beautiful straw color or nearly white, and puts them in a perfectly marketable condition, so far as appearance is concerned.

We are inclined to the opinion that Mr. C. has taken hold of a branch of horticulture in the growing of the almond, that will place him in the enjoyment of an easy competence within a very few years; for not only would his present setting of trees do all this, but he has now on hand between 60,000 and 70,000 trees yet to set or sell.

Imposition.

There are those who have raised seedling trees from the Languedoc almond and which they now offer—though unbudded—as the genuine variety. No reliance can be placed on seedlings; they must be budded with the desired variety or you are nearly certain to get only the most common inferior fruit.—*Rural Press.*

An orchard of well grown walnut or almond trees pays well for all the trouble of planting and tending it. The Santa Barbara *Press* of November 2d, said: "We learn that Mrs. Ellis gathered over a thousand pounds of nuts from her almond trees on the half block bought of Mr. Summers last January. There are about 200 trees, three years old, and they occupy less than two acres of land. At only 20 cents per pound, while nice fresh almonds sell higher, this crop will pay a hundred dollars per acre."

A Fine Place.

Col. Hollister will soon have the largest almond orchard in the State. It will contain about 20,000 trees. Besides these he is planting large numbers of limes, lemons and oranges, and many other fruit trees. A recent importation of bananas by him, from the Sandwich Islands, is looking well. The Colonel can have, and seems determined to have, the banner farm of Southern California.—*Ventura Signal, Dec. 7th.*

ENGLISH WALNUTS.

The Tulare *Times* has received some English walnuts grown in Visalia. It says they are very large and of fine quality. It further adds: The walnut-tree is a hardy one in this valley—very prolific, in no wise affected by frost, and will produce as many dollars to the acre as any crop that can be cultivated. Our valley might be made, with a very small outlay of labor, to supply the whole State with these nuts, and it even might produce a quantity sufficient for export, if the growing of the walnut was entered into as a business by some of our enterprising orchardists.

MOROCCO COFFEE IN TUOLUMNE.

Mr. L. Fisher, of Rough and Ready Creek, has demonstrated the fact that coffee will grow in Tuolumne county. From a number of berries sent from Germany, of Morocco coffee, he planted ten seeds in April, and from five plants he got 263 beans. Frost will kill the plant, and care should be taken that they do not come in contact with it. Wherever beans grow, coffee will flourish also, especially in the warm Southern climate of California. It grows generally in its stunted form four to five feet high, but in very rich bottom land it has been known to grow from sixteen to eighteen. Botanists say the stem is upright, and covered with a light-brown bark; the branches horizontal and opposite, crossing each other at every joint, and forming a sort of pyramid. The flowers grow in clusters at the root of the leaves, close to the branches, and pure white. The berry grows in clusters along the branches, under the axils of the leaves. We predict that the cultivation of the coffee plant will yet be a big thing for California, not only in supplying our home wants, but will constitute one of the leading articles in the way of commerce. People who have ground to spare should experiment in this, of all the crops, the most profitable.—*Tuolumne Independent, March* 8.

FRESNO COUNTY ITEMS.

A Promising County.

Not many years ago the San Joaquin Valley was universally considered a desert. During the last few years enterprising capitalists have succeeded in attracting public attention to their locations of land in the upper portion of the valley, and have expended large sums of money in providing facilities for irrigation. Comparatively speaking, only a very small section has been rescued from the danger of droughts; yet that portion is capable of sustaining a population of many hundreds of families. The old notion of sterility has been exploded, and with water on, we know that the San Joaquin Valley is not excelled for fertility and variety of productive power by any known section of country in the world.

Yesterday we were shown specimens of this year's growth of various specimens of farm product raised near the banks of the Fresno Canal, in Fresno County. The farm is situated near Centreville. On it are growing luxuriantly cotton, sugar cane, castor beans, corn, figs, pomegranates and other valuable plants and trees. There are in fields about, large plantations of cotton, which are looking well. The bolls of the plants are swelling out handsomely and will in a few weeks burst and be ready for picking. Most of these fields have received no irrigation this year. There are several acres of sugar cane, which is now ten feet high and promises to yield a fine crop of saccharine matter. This experiment alone has proved the great value of irrigation in our warm valleys and opens up a new field for industry. Corn is sixteen feet high in many places. There is a castor bean tree, which is three years old and which measures thirty-four inches in circumference at the trunk and twenty-one inches six feet above the ground.

There are many other prominent indications of the latent wealth of the soil, which foretell the future value of the region in which they are growing.—*Alta, July* 31, 1872.

The Cotton Mania.

Cotton growing threatens to become a mania in our county and in fact elsewhere in the State. We have conversed with quite a number of parties during the past few weeks who contemplate planting their lands with the "staple" next season. This is in a great measure due to the successful culmination of the cotton growing enterprises which have been undertaken in this county and in other portions of the Valley. Strange to relate, what has hitherto (previous to 1872) been considered the arid plains, is the land being selected for cotton plantations by many. There are two reasons which conspire to bring about this state of facts: First, The land is susceptible of irrigation from the King's River Irrigation Canal; Second, It is more convenient to the railroad. That these cotton growing enterprises will be successful, hardly admits of a doubt, and that it is a more lucrative crop than wheat, no one pretends to question. A successful growing of cotton on an extended scale will place Fresno far in advance in point of wealth and prosperity, to any of the thrifty grain-growing counties. — *Fresno Expositor*, Nov. 20, 1872.

Wool at Fresno.

The immense amount of wool now being sent to the railroad station at that point, is astonishing to visitors. The oldest resident of our county having but little idea of its immense and valuable resources are astonished at the immensity and value of its exports, the first exclamation made by him, in pleasureable surprise is: "Is it possible that all this is the product of Fresno County?" The cause assigned for its segregation at that point and delay of its transportation to market is that all available freight cars are now being used at all points on the line, transporting the immense grain yield of our country, to the Bay for shipment and exportation.—*Expositor*, Oct. 24, 1872.

COTTON.

Mr. C. D. Davis, last year, raised a crop of cotton on King's River. It turned out well, and finding it profitable, he this year planted another, and the Fresno *Expositor*, of the 30th ult., gives the following account of his operations:

Mr. Davis put in a field of forty acres and paid five dollars per acre rent for the land, and used thirty pounds of seed per acre, which was planted in drills and well irrigated. There seems to be something peculiar in the growth of this cotton in the second crop. One picking has already been completed, and preparations are now being made to commence picking the second crop. The bolls of this appear in as great numbers on the plant, as large, and open as freely as those of the first. Some of the plants have as high as 150 bolls on them. A sample of both plant and cotton may be seen at our office. All the labor attached to the cultivation of this crop was performed by one man, with now and then the assistance of Mr. Davis himself. The estimated expense of the crop, including rent, cultivation, picking, and all incidentals, amounts to $770.00. The present situation of the crop furnishes many evidences that may not be seen at other times, and it would be well for parties contemplating to grow cotton to inspect the crop at this time. The field presents the appearance of snow banks, as the gatherers leave the cotton in piles in the field, which presents a rather beautiful sight, especially in the evening. Mr. Davis is so well pleased with the success he has met with that he has rented 160 acres of land for the same purpose next year, so have many others in that vicinity—in all 1,000 acres—100 acres of which will be planted by Mr. W. Kipp and J. Hutchinson. From present appearances we are led to believe that our county is soon to be known as a cotton growing county.—Oct. 24, 1872.

Cotton.

From Captain Thomas Pryce, of King's River, we obtain the following cotton news: In the vicinity of Centerville, on King's River, a large amount of land will be cultivated with cotton. Among those who are going at it extensively are Messrs. Helm & Davis, who will put in 160 acres; Messrs. Noonan & Stevens, 150 acres; Capt. Pryce, 80 acres; Mr. Hudgings, 60 acres; Mr. Mathews, 60 acres; Mayhue, 50 acres; Child & Bros., 100 acres. Other parties will put in smaller amounts, which will swell the number of acres of cotton on Upper King's river to about 1,000. In the vicinity of Fresno and on Fancher Creek, fully as much more cotton will be planted. Those who have had experience in the growing of cotton in this State, think that if we only have a reasonable fall of rain during this month and next, there will be little, if any, irrigation needed.—*Expositor, March*, 1873.

Statement of a Cotton Crop of Twenty Acres.

From a private letter written by Mr. John Strong, of Merced county, to a friend of ours, we are permitted the following extract:

Crop of Turner & Helm, Mariposa Creek, for 1872. Cost of preparing, planting and cultivating:

DR.	
Twenty acres, at $8 25 per acre..........	$165 00
Picking 14 bales, at $9 per acre..........	380 00
Twenty bushels seed at $2 50 per acre....	50 00
Ginning, baleing at $8 per bale..........	112 00
Total..................................	$707 00
CR.	
By 7,028 pounds lint cotton, 14 bales at 20 cents per pound..........................	$1,405 60
462 bushels seed valued at $1 per bushel..	462 00
Total..................................	$1,867 60
Net profit, $50 per acre..................	1,160 60

Other crops netted from $12 to $38 per acre.

Presuming that the above experiment is above the average of what cotton planters may expect, still it will be seen that it is a far more remunerative crop than wheat or barley. More ready money, at the rates given above, can be made from a 20-acre field of cotton, than five times as much land planted to wheat. While we desire to see California lead the world as a grain growing country, our greatest desire is to see the farmers raise such crops as will give them the greatest returns for their labor and capital. To the farmers of this section, it is quite evident that cotton is one of the most lucrative crops that can be cultivated, and we are certain the day is not far distant when all portions of the plains of our country that can be irrigated, will be yielding annual crops of cotton, jute and rice, and enriching the farmers more rapidly than other sections, where the opportunities are less favorable, and where wheat and barley are the staple crops.—*Fresno Expositor, Jan.* 22*d*, 1872.

MORE CALIFORNIA COTTON.

From all parts of the great valleys of San Joaquin and Tulare, we are getting good tidings of the cotton crop. We have heretofore made mention of the successes attending its culture in Merced County and other parts of great southern inland valleys, and now we get the first report from Fresno County. Mr. Amos Child, from Centreville, Upper King's River, left with us last week a sample of cotton, the first out of Fresno County.

To say that it is a fair sample of cotton, would not be enough, for it is fully up to choice, in quality, because of the several samples we have received within the last two months from other parts of the State, this certainly is equal to any, if it does not surpass them all.

A matter of interest connected with its production is this: it was grown upon a light, loamy soil, where nothing like a farm crop can well be grown without irrigation. Here Mr. C., who never cultivated an ounce of cotton before, attempted its production on one and a half acres. With water from King's river, he irrigated his cotton ground no less than five times, once in about three weeks during its growth, by running the water in small ditches midway between the rows, never allowing it to spread over the surface or touch the stalk of the plant.

Extent of Irrigation.

As to the extent of irrigation, to secure the largest and best yield of cotton, the experience of Mr. C. is just this, that where he irrigated the most abundantly, he got the best yield in all cases and places. His cotton was planted on the 25th of April, but thinks the 1st of April would be better, or as soon after all danger from frost is passed as possible. The first boll of mature cotton was picked on the 28th of June.

He would plant in rows five feet apart, because he finds when sufficient water is given the plants, they will fill that amount of space. His present planting was three, four and five feet apart and thinks five feet the best. The yield on the one and a half acres was 445 pounds or at the rate of very nearly 300 pounds to the acre.

There is no doubt but his cotton is worth and ought to bring 25 cents a pound; his best offer, however, is 18 cents in San Francisco, which he will probably take, rather than forward so small a lot to an Eastern market. So complete has been his success the past season, he will increase his next year's crop to the full extent; he will be able to irrigate about 90 acres, growing as an experiment on a portion of the same, the well known and always valuable, Sea Island variety.—*Rural Press, August*, 1872.

Successful Farming.

Fifty-five miles east of Merced in Fresno County, A. Y. Easterby owns a ranch. On the 2d day of October last, work was begun there by C. S. Lohse, his farmer; there was then nothing but a shanty there. Since that time he has erected a large and commodious farm-house, barns, sheds, blacksmith shop and corral; built eight miles of substantial board fence; put in 2,100 acres of wheat, 180 acres of barley, 25 acres of rye, 25 acres of corn and vegetables, and harvesting a crop from that land of 35,000 sacks of grain, weighing 125 pounds each, or 4,375,000 pounds, besides a supply for his domestic purposes. They have a small ditch running from King's river, by which they flooded the land once before plowing; and the rains were then sufficient for the crop. The statement may be regarded as strictly true in every particular, and we believe it to be an instance of the most successful farming ever recorded in any country.—*Alta California, Sept. 9th*, 1872.

JUTE—WILL ITS CULURE PAY?

From time to time since last November, we have brought before our readers the importance of the culture of jute, and notwithstanding the favorable showing we have made, there still lags a doubt in the minds of some, whether if it can be grown successfully it will be a paying crop? We noticed a very sensible article in the San Francisco *Bulletin* a few days since, touching on this point, which we re-produce for the benefit of our farmers:

"The address delivered by the President of the State Agricultural Society at the annual meeting, touches, among other items of interest, that of the cost of grain sacks to the farmers of this State. The expenditure for this item alone last year is set down at $2,450,000. These sacks are made of jute, imported from India, and worked up in Scotland. The opinion is expressed that the rich bottom lands, especially in the southern part of the State, where irrigation is practiced, will produce jute equal in quantity to that of India.

Besides the uses of this material for grain sacks, it is incorporated into more costly fabrics, while the coarser parts and refuse, known as jute buts, are eagerly bought up for paper stock. According to Mr. Reed's estimate, it required last year 2,722,222 bushels of wheat, or one-eleventh of the entire crop to pay for the sacks. There ought to be capital and enterprise enough in California to master this business. The importer of the raw material makes one profit, the manufacturer another, and the importer the third one.

We have taken hold of sugar production in earnest, and are making commendable headway. There is a ludicrous side to the fact that we cannot furnish sacks of the coarsest material for the wheat and the wool which must be sent to market.

We have made very litte progress in the matter of producing textile materials. Flax production increases slowly, if at all, although for years high prices have been offered for the seed. Little or nothing has been done in hemp, which has long been one of the most profitable crops raised in Kentucky, Missouri and others of the Middle States. A few persevering men are doing their best for cotton culture in the San Joaquin Valley, and with every prospect of success. The two and a half millions of dollars required for grain sacks ought to send some pioneer into the field for jute."

We are happy to be able to say that the adaptability of this plant to the climate and soil of Fresno county will be pretty thoroughly tried this season, as we have sent seed to different portions of the county—*Exposition, Feb. 5th*, 1873.

DOUBLE CROPS IN FRESNO COUNTY, CALIFORNIA.

Last season a man on King's River, in Fresno County, raised a fine crop of barley on his land. He immediately replowed his field, and planted corn, and raised one of the finest crops on the river. A little enterprise and industry of this kind is very apt to surprise the sleepy style of pioneer farmers and stock-raisers who abound in some of our richest valleys.—*The West.*

TROPICAL FRUITS.

We are informed that Mr. Gould, the gentleman who purchased the tract of land for an orchard, notice of which appeared in our columns some weeks since, intends to commence work this fall. It is his intention, we learn, to devote the orchard principally to the raising of the rarer tropical fruits. The climate of our valley being peculiarly suitable for this class of fruits. Mr. Gould will commence work as soon as he can secure water from the Fresno Irrigation Company's canal.—*Expositor, Oct. 2d*, 1872.

FROM Mr. A. L. Gould we learn that work on the King's River and Fresno Canal Company's aqueduct is progressing favorably. About ten men and forty horses are now at work plowing and scraping out the main canal, and the force is to be greatly increased. William Hudginge is foreman of the work. If the epizooty don't get after the horses too badly the main branch of the canal will be completed to the vicinity of Fresno City by the 1st of May. Mr. Gould, as well as many other settlers along the line of this canal, are very anxious to have it completed, as they must have the water for their orchards and vineyards and cotton fields.

THE price of land is rapidly increasing in this county. Land which three years ago went begging at $3, $4 and $5 per acre, finds ready purchasers at three times that amount. The natural inference to be drawn is that our section is rapidly gaining rank as an agricultural country.—*Expositor, March* 26, 1873.

Great Land Advances in the San Joaquin Valley.

The *Real Estate Circular* says:

A gentleman of this city who has within the past few years frequently traveled over the San Joaquin Valley, lately returned from a trip through it. He informs us that a wonderful change for the better has come over all that region of late. This change is, of course, partly due to the last and present most favorable season for farming operations, but it is still more due to the building of the railroad through the valley. Until railroad transportation was provided, it did not pay to raise ordinary crops there. The expense of transporting them to market consumed the most of the profits in all cases, and were so high in many others as to be actually prohibitory. One person, near Merced, owns 2,500 acres of land, which he purchased for $12,500 about eighteen months ago; he lately refused $65,000 ($25 per acre) for it, and thinks it is worth $50 per acre. A Sacramentan purchased 1,200 acres for $15,000 a little over a year ago; he was lately offered and refused to take $35,000. Easterby, of Napa, owns 2,500 acres in Fresno County, four miles from Fresno station; the land was worth about $2 50 an acre three years ago; he can now get $25 for it. He expects this year to reap 25 to 35 bushels of wheat off this land, from a volunteer crop. C. J. Frash, a well known grape-grower (formerly with Groezinger & Co.), is now planting 1,000 acres in vines near Fresno. He will this year and next plant cotton between the vines, until the latter begin to bear. M. J. Church has rented a tract of land near Fresno at $5 per acre to a cotton-grower; the same kind of land could have been purchased for half that sum three or four years ago. No portion of the State is now more progressive than the San Joaquin Valley. The locomotive's bell has scared off the stock-raisers and their bony herds and brought settlers and cultivators.

RICE IN FRESNO COUNTY.

We received a few days since a sample of Rice grown by J. R. Heinlein, near Kingston, in this county. He planted two pounds last Spring and has harvested about one hundred pounds from it. The samples sent us are very fine. The grains are large, plump and white, and the heads full. Mr. H. intends to plant more next year. If such rice, as the sample shown us, can be raised in this county, it would be a very lucrative business to engage in its culture.—*Fresno Expositor.*

WE learn from Mr. Aug. Weihe, of San Francisco, and an extensive land owner in this county, that he is putting in 120 acres of grain about four miles from Fresno. He says he has plowed as deep again as any of his neighbors, and expects it to yield double the amount per acre of others around him. He will put in 100 acres of alfalfa, sowing barley with it, and 100 acres of cotton, of Tahiti quality, which is said to be a very long staple. He will also plant 7,000 almond trees, and gum trees so as to form a row around 100 acres. He has also procured six large cottonwood trees from E. C. Winchell, of this place, which he intends to set around his dwelling. Mr. Weihe also informs us that Mr. H. Voorman is putting in some 950 acres of wheat, and Geo. H. Eggers 1,280 acres of wheat six miles from Fresno; this, with the amount put in by Gould and Easterby, and 1,000 acres by B. C. Liby, whose place is two miles south of Mr. Weihe, and many others, will sum up very handsomely for that section around Fresno.

ON last Saturday we visited the place of Messrs. C. G. Frash and F. T. Eisen, which is about four miles from the new town of Fresno. Mr. Frash formerly had charge of the Groezinger vineyard and wine-making establishment at Napa, and is a man of much experience. F. T. Eisen is connected with the San Francisco Pioneer Mills. Mr. Frash informed us that he had traveled considerably about the State looking for a location, but had seen none, taking all things into consideration, that suited him as well as his present location, in this county. These gentlemen have 1,280 acres of land, and are now engaged in plowing and planting. They have three gang-plows running, besides several single ones preparing the already plowed ground for setting out grape cuttings. In all, there are some twenty men employed on the place. They have 200,000 grape cuttings, and all of foreign varieties—will plant 100 acres of cotton and corn, and grain enough for their own consumption. Mr. Henry Roemer is engaged in building a house and barn and other necessary buildings. These gentlemen are at work with energy and vim, and have the greatest confidence in the success of their enterprise, and we hope they may not be disappointed. We omitted to mention the name of Dr. Brandt, who is also interested in this enterprise.

This has been one of the coldest Winters ever felt by the residents of Fresno county, yet it has been exceedingly mild. As an evidence: In the garden of Mr. C. A. Hart is now growing and in blossom a mignonette plant, which has stood out throughout the entire Winter unprotected, and subjected to all its rigors, and has during the entire time been covered with fragrant flowers. The plant is known by every gardener to be an annual of a most delicate character, but here we have an instance of its being transformed into a perennial without care or attention.—*Expositor, Feb*. 19, 1873.

The election at Fresno City resulted in voting a school tax of $3,000 on the property of that district for the purpose of building a school house. There was no opposition.—*Expositor, April* 30, 1873.

Many more extracts might be added, but these are sufficient to show the variety of the productions of this bountiful State.

Rich Returns.

It will be difficult to find any other region where the labor of the husbandman is so bountifully repaid as in Southern California. The published statistics of travelers and Government officials present facts in relation to the profits of fruit-growing, which vie with the returns of our rich gold and silver mines. Says one writer enthusiastically, "There is a fortune in the very adornment of your homes."

Commissioner Wilson in his widely circulated letter on Southern California, states the average product of a grove of orange trees at 1,500 each, while some reach as high as 4,000.

The following estimates of the profits of semi-tropical fruit-growing are taken from Nordhoff's late valuable book on California. He states that they are considerably below the actual figures of the orchard books. "I know," he says, "shrewd men who are planting forty and even twenty acres with almonds, or olives, or oranges, or English walnuts * * and who hope to secure in six or eight years a handsome and permanent income." The

Orange,

at eight years from planting out the nursery trees, or ten years from seed, will bring one thousand to the tree. Sixty trees are planted to the acre. These trees are found in practice to yield at the very least, $10 clear profit per tree or $600 per acre. This is far below the present actual yield of Orange orchards in Los Angeles." He places the value of the product of the

Lemon

on an equality with the orange. He estimates the average product of an

Almond Orchard

the 4th year at $108 per acre, the 6th year at $216, the 8th year at $400. Of the

Olive,

"60 trees go to the acre, and they bear a profitable crop in the 9th or 10th year. Either for oil or table olives, the trees should, 10 years from the cutting, yield at least $8 per tree clear profit, (per acre $480).

The English Walnut,

bears from 50 to 75 pounds of nuts 12 years from the planting; at 15 years, from 100 to 150 pounds. The nuts are worth from 10 to 12½ cents per pound in the orchard. Thirty trees are set to the acre." Profits per acre at 12 years, from $150 to $225; at 15 years, $300 to $450.

Limes.

Mr. Wolfskill, of Los Angeles, considers the present profits of the Lime equal to those of the orange. It bears the third year, and yields a good crop the fourth year, and a full crop the fifth.

A correspondent of the San Francisco *Bulletin*, writing in October, 1872, states in relation to the profits of the Orange, that "at eight years from date of planting these trees will yield a crop worth at present prices, $500 per acre. This is no imaginary picture. There are innumerable instances in the Los Angeles and San Gabriel valleys where these estimates have been more than realized." As to the danger of

Over-Production

Nordhoff quotes and approves this sensible statement: "At any probable rate of planting, the semi-tropical fruits raised in California for the next thirty years will not increase the quantity in proportion with the demand for them, arising from the increased population west of Chicago and St. Louis, all which will be the market for these products."

For the information and guidance of those who wish to know what it will cost to establish themselves here, we append the present market prices to the following articles:

A single room house can be built at a cost of	$100 00
A two room house with kitchen attached at a cost of	200 00
Barn and corral at a cost of	100 00
Mexican unbroken horses will cost, each	25 00
Good American horses will cost each	50 to 100 00
Good milch cows will cost each	30 to 50 00
Single plows	20 to 30 00
Gang plows, four plows in each gang.	60 to 65 00
Harness per set	20 00
Wagons	90 to 250 00
Hogs	8 to 12 00
Sheep	2 50 to 3 50
Osage Orange hedge plants per 1000	5 00
Grape cuttings per 1000	10 00
Blue gum trees per 100	5 00
Mulberry trees for silk per 100	6 00
Apple trees per 100	12 00
Pear trees per 100	25 00
Peach trees per 100	12 50
Plum trees per 100	25 00
Cherry trees per 100	25 00
Nectarine trees per 100	25 00
Persimmon trees per 100	35 00
Pommegranite trees per 100	35 00
Orange trees per 100	60 00
Lemon trees per 100	60 00
Lime trees per 100	60 00
Fig trees per 100	35 00
Olive trees per 100	30 00
Almond trees per 100	20 00
English walnut trees per 100	15 00
Strawberry plants per 100	1 50

The above prices are for trees 2 to 5 feet high and 1 to 3 years old. If grown from the seed instead of buying from the nurseryman and paying him an immense profit, they could be produced at a fraction of the above prices.

It will be seen from the above list that a person desiring to secure a farm of 160 acres, and commence on an economical basis, would require for 160 acres of land at $10 00 per acre—1,600.

One-third payable down	$ 533 33
House	100 00
Barn and corral	100 00
Two Horses	50 00
One set harness	20 00
One wagon	125 00
One plow	25 00
Household utensils, seed, groceries and cash on hand	246 67
Total	$1,200 00

By working during harvest time for his neighbors he can obtain money enough to greatly assist him in the purchase of grape cuttings and trees for his vineyard and orchard. These figures are intended to show how comfortably a man with the above amount of money can make a commencement in establishing a home for himself and family. The purchase money for the land being payable in "greenbacks," there would be no discount on that, but, to the balance of the amount would have to be added the difference between the value of gold and "greenbacks." That, however, would not be found a hardship, as the price of everything he purchased would be brought down to a gold valuation, and everything he produced and sold from his farm would be paid for in gold. Those buying a small tract of land and desiring to lease adjoining land for cultivation, can do so on favorable terms.

WHOLESALE PRICES IN SAN FRANCISCO.

From the "Commercial Herald and Market Review" of May 30th, 1873.

WHEAT—Per 100 lbs, $2.
BARLEY—$1 45.
CORN—$1 30.
OATS—$2 15.
RYE—$2 50.
HOPS—Per lb. 50c.
FLOUR—Per bbl., $4 50 to $6 00.
HAY—Per ton, $21.

BEANS—Pea are scarce and higher, now held at 6@6¼c; Small White, 5¼c; Butter, 5¼@5½c for large, 5c for small; Bayo, 3@3¼c; Pink, 3½@3¾c; Red, 3½c; Lima, 4½@5c; Castor, 3½@4c.

POULTRY—The supply is more liberal. Prices at date: Hens and Roosters, ⅌ doz. $7 50@9, as to size; Spring Chickens, small, $3; large, $4@$4 50; Ducks, tame, $8@9; Geese, tame, $1 75@$2 ⅌ pair; Turkeys, 20@21c ⅌ ℔; dressed Turkeys, very scarce, 20@22c ⅌ ℔; Hare, $3; Doves, 75c@$1 ⅌ dozen.

CATTLE—Beef is plentiful and cheap, selling by the quarter at 4@7c. Calves, plenty, 5@7c. Mutton, 5@5½c. Lambs, 7c. Hogs on foot are scarce, but the demand is light, except for small; prices: 6@7¼c for live, and dressed, 9@10c, the latter price for small.

DAIRY PRODUCE—Receipts of Butter are less liberal, and prices firm at 27@30c for good; choice, 32½; fair, 25@26c. California Cheese, 12@14c; Eastern Cheese, 15@16c for good to choice. Fresh California Eggs are plentiful at 22½@24c; 11,000 dozen Oregon, received by steamer, selling at 17@19; Eastern Eggs, exceedingly plentiful and dull at 17@18c.

FRUIT—Currants, Cherries and Strawberries continue very plentiful and of good quality. Raspberries have also appeared, as well as Apricots. Oranges are again in fresh supply from the Islands. Current rates are: Strawberries, $7@$9 ⅌ chest; Raspberries, 35c ⅌ ℔; Gooseberries, 7c; Red Currants, 8@10c; Cherries, choice, 25@35c, common, 8@12½c; Apricots, 5@8c; Oranges, Tahiti, $40@$45 ⅌ M; Lemons, Sicily, $12⅌$14 ⅌ box, Los Angeles, $3@$4 ⅌ C; Limes, $10@$12 50 ⅌ M; Bananas, $3 50@$4 50 ⅌ bunch; Pine

Apples, $8@$10 ⅌ dozen; Cocoanuts, $12 50 ⅌ C. Dried Fruit—Apples, 6@7c ⅌ ℔ in sack, 7@8c in boxes; Plums, 5@8c; pitted, 16@18c; Raisins, 5@12½c; Figs, black, 8@10c; Figs, white, 15@18c. 23 boxes Los Angeles Oranges came up by last steamer, and sold at $5@$6 ⅌ 100. A cargo consisting of 200,000 Tahiti Oranges arrived the fore part of the week, coming to a good market, and selling from ship at $40; jobbing at $45 ⅌ M.

A comparison of the above prices with those received by the farmers in the—so called—Western States, must prove another powerful incentive to them to seek this region of prolific soil and perpetual Summer. The cost of railway transportation from Fresno to the ship at San Francisco, is one quarter of a cent per pound, which, being deducted from the above prices, will show the net amount received by the farmer. As compared with the state of affairs in the "West," where *it costs more to pay the freight on grain to a sea-port than the farmer receives for his produce*, the position of the California farmer can be seen at a glance to be immeasurably superior. It should also be remembered that the prices quoted are paid in gold, which being applied to the payment on groceries, clothing, farming implements, etc., purchased at the "East" for greenbacks, enriches our farmers still more and shows the great advantage of our Gold and Silver currency.

To enumerate all the advantages which California in general, and this tract of land in particular, offers to the industrious farmer and horticulturist, would occupy too much space. We may, however, select a few of the more prominent ones, among which are, A RICH VIRGIN SOIL, A CLIMATE OF PERPETUAL SUMMER AND PERFECT HEALTHFULNESS, AN ABUNDANCE OF WATER, BOUNTIFUL CROPS, AND A HARVEST SEASON OF FIVE MONTHS DURATION, IN WHICH THE GRAIN, HAY AND OTHER CROPS MAY BE LEFT IN THE FIELD WITHOUT FEAR OF A DROP OF RAIN TO INJURE THEM. TWO CROPS A YEAR, AND NO FAILURE OF CROPS, being insured by irrigation, and finally, A VARIETY OF CROPS SUCH AS CANNOT BE GROWN ANYWHERE ELSE IN THE UNITED STATES.

Parties going to examine this property must not expect to find a country covered with culivated farms, orange, lemon, fig and almond groves in every direction, and nature revelling in a growth of tropical luxuriance, for directly the reverse of this will be found to be the case. They should remember that it is but recently that the county has been reclaimed from the thriftless use of the cattle and sheep owner, and that it is only within one year that a railway has been constructed to enable the farmer to market his crop. In all this, however, there is this advantage, viz.: The new comer to the State is enabled to purchase land at a very much lower price than if the country were thickly settled and with such soil, climate and abundance of water as may be found there, he can, in a few years produce such results, (if he display but ordinary energy and industry), as will not only astonish himself, but which it would be utterly impossible to accomplish in any other portion of the United States. He may, at first, plant wheat, corn, cotton, jute and other crops, which will give him an immediate cash return, and while not engaged on those crops he can utilize every hour of his time, during the entire year, in planting vines, orange, lemon, fig, cherry, almond and other trees, and otherwise improving and adorning his home. In five or six years the result of his labor and the labor of his neighbors engaged in the same commendable enterprise, will be an enormous increase in the value of his property, sometimes amounting to five thousand per cent.,—$500.00 per acre being no unusual price for a first class vineyard or semi-tropical fruit orchard.—It will also provide him a large and unfailing annual income, increasing as the years roll by, and, returning each day from his cotton fields and orchard he may rest content in his cottage, in the midst of beautiful flowers, luxuriant vines, palms, figs, olives and bananas, shaded by orange groves, the enviable possessor of Health, Wealth and a Happy Home.

Further information may be had by applying to

WM. H. MARTIN, *Gen. Agent*,
California Immigrant Union,
534 California Street,
San Francisco.

CONDITION OF THE CROPS THIS SEASON.

Our grain harvest has now become quite general, the quality good, while the impression prevails that the grand aggregate will equal that of last year. * * * Our combined exports of Breadstuff for the harvest year now drawing to a close approximate 10,500,000 centals. This includes 256,000 bbls Flour; the whole valued at $20,000,000. This year's Barley crop is large, probably greater than that of any preceding year. Oats and Corn are both promising. The Hay crop is immense. Beans a light yield. Of Wool our receipts exceed those of last year by 5,000 bales. * * * * The total figures for this year's harvest, as shown in the subjoined table, compared with the last, vary widely from popular anticipations recently entertained. The estimates are those of leading agriculturists, many of them raising Wheat by the ten thousands of centals, and are substantially correct. They enable us to show that the California Wheat crop of 1873–4 is greater than that of 1872–3 by more than 500,000 centals, or 25,000 tons.—*Commercial Herald, June 19th*, 1873.

WEALTH OF CALIFORNIA.

[*From the Commercial Herald and Market Review, Jan.* 17*th*, 1873.]

Wheat Product of 1872	25,000,000 Bushels.
Gold and Silver Yield, 1872	$80,000,000.
Gold andSilver Exports for 16 Years	$656,000,000
Wheat and Flour Exports in 17 Years,	43,000,000 Centals.
Foreign Import, Values of, 1872,	$40,000,000.
Receipts of Lumber in 1872	237,000,000 Feet.
Receipts of Domestic Coal, 12 Years	1,500,000 Tons.
Wool Clip of 1872	25,000,000 Lbs.
Wine Product of 1872	4,000,000 Gallons.

A CONDITION OF REMARKABLE PROSPERITY.

It has been estimated that the number of persons actually engaged last year in gathering and marketing the agricultural products of California was less than 126,000, while the value of our domestic products was $40,000,000, which is equal to $3,000 for each hand engaged in their production. The State Assessor's books show that there are about 242,000 property holders in this State, and that the assessed value of property is $636,000,000, which is an average of $2,600 to each property-owner. A figure which establishes a high degree of average and aggregate wealth and a condition of remarkable prosperity.

OVERLAND IMMIGRANTS.

The seven hundred and and odd immigrants which arrived in California the last day of April, overland, are described as a healthy, well-to-do, agricultural class. It is such an immigration which builds up a State. It is reported that during the months of May and June about 6,000 immigrants may be expected to arrive in our State for the purpose of founding homes. The greater portion of this number will be from Michigan, Ohio and Wisconsin.—*Resources of California, June*, 1873.

CUNARD LINE.

The British & North American Royal Steamships between NEW YORK and LIVERPOOL, calling at CORK HARBOR.

COMPANY'S FLEET.

Abyssinia,	4000 Tons	Capt.	Hains	Kedar,	2000 Tons	Capt.	Pritchard
Algeria,	4000 "	"	Le Messurier	Malta,	2200 "	"	McDowall
Batavia,	2800 "	"	Murphy	Marathon,	2000 "	"	Leitch
Bothnia,	5000 "		Building	Palmyra,	2200 "	"	Browne
Parthia,	3500 "	"	Watson	Russia,	3000 "	"	Cook
Aleppo,	2100 "	"	Edmondson	Samaria,	2600 "	"	Billinge
Calabria,	3000 "	"	McMickan	Scotia,	4000 "	"	Lott
China,	2700 "	"	Macaulay	Scythia,	4000 "		Building
Cuba,	2800 "	"	Moodie	Siberia,	2500 "	"	J. Harrison
Hecla,	2000 "	"	Gill	Sidon,	2100 "	"	Kelly
Java,	2800 "	"	Martyn	Tarifa,	2200 "	"	Inglis

Every Wednesday and Saturday from New York.

RATES OF PASSAGE.—Cabin, $80, $100 and $130 gold, according to accommodation. Tickets to Paris, $15 gold additional. Return tickets on favorable terms. Steerage, $30 currency.

Steerage tickets from Liverpool and Queenstown, and all parts of Europe, at lowest rates. Through bills of lading given for Belfast, Glasgow, Havre, Antwerp and other ports on the Continent and for Mediteranean ports. For freight and cabin passage apply at the Company's office, No. 4 Bowling Green; for steerage passage at No. 111 Broadway, Trinity Building, New York.

CHAS. G. FRANCKLYN, Agent, New York.

CUNARD LINE.—Notice.—With the view of diminishing the chances of collision, the Steamers of this Line will, henceforth, take a specified course for all seasons of the year.

On the Outward Passage from Queenstown to New York or Boston, crossing Meridian of 50 at 43 Lat., or nothing to the North of 43.

On the Homeward Passage, crossing the Meridian of 50 at 42 Lat., or nothing to the North of 42.

Notice to Passengers from Australia, New Zealand, China and Japan.—The Cunard Line affords more than usual facilities to through passengers from trans-Pacific ports, the frequency of its sailing precluding all possibility of delay in New York

Passage Tickets sold to and from Europe, Cabin Plans can be seen, and State Rooms secured at office of

E. E. MORGAN'S SONS, 320 California St., San Francisco.

GREAT WESTERN STEAMSHIP LINE.

BRISTOL AND NEW YORK.

Arragon, Great Western, Lapland, Lady Lycett, & Cornwall (Now Building.)

A steamer of this Line Will sail fortnightly from Pier 18, E. R., foot of Maiden Lane. They proceed direct to and from New York and Bristol, carrying only a limited number of passengers, every attention being paid to their comfort and convenience.

CABIN PASSAGE.

Bristol to New York	$75	Return Tickets, available for 12 months	$120
New York to Bristol	70	Intermediate Passage	$45 & 50

Steerage Passage to New York, Boston, Portland, Baltimore or Philadelphia, $34.

Children under eight years of age, half fare. Infants under twelve months, $6.00,

New York to Bristol, Steerage Fare....................$30.00

Passages can be engaged by applying to the undersigned, to whom Post Office Orders to be made payable, and sent, with particulars of name, age and occupation of each passenger. Steerage Passengers will be provided with comfortable Berths to sleep in, each adult having a separate Berth; and Females wil be placed in rooms by themselves; but they will have to provide themselves with a Plate, Mug, Knife, Fork, Spoon and Water Can, also Bedding, all of which can be purchased by them for about **$3.** MARRIED COUPLES WITH THEIR CHILDREN WILL BE BERTHED TOGETHER IF THEY DESIRE IT.

TWENTY CUBIC FEET will be allowed each adult Cabin Passenger, and ten cubic feet for each adult Steerage Passenger, free. For all over that quantity a charge of 27 cents for each cubic foot will be made. Drafts from £1 upwards. Passage tickets sold to and from Europe For pasage and particulars apply to **MARK WHITWILL & SON, Queen Square, Bristol, England, E. E. MORGAN'S SONS, 70 South Street, New York,** or

E. E. MORGAN'S SONS, 320 California St., San Francisco.

TELEGRAPH STAGE LINE,

CARRYING U. S. MAILS AND

WELLS, FARGO & CO.'S EXPRESS.

OVERLAND DAILY BETWEEN

SAN FRANCISCO AND LOS ANGELES.

268 miles by Rail in Palace Sleeping Cars, making a saving of **190** miles of Stage travel by taking this route.

Time Through, 48 Hours.

BY RAIL TO TIPTON, AND STAGES OF THE TELEGRAPH STAGE COMPANY *via* San Joaquin Valley, Bakersfield and Fort Tejon to Los Angeles, connecting there with stages for San Diego, San Bernardino and all parts of Arizona; conneeting at Bakersfield with the Company's Eastern line for Havilah, Kernville, Little Lake, Big Lake, Lone Pine, Cerro Gordo, Independence, and all points on Owen's River.

TIME, 60 HOURS THROUGH.

WM. HAMILTON, W. G. ROBERTS, Prop'r

WM. G. ROBERTS, Agent,

208 MONTGOMERY STREET, SAN FRANCISCO.

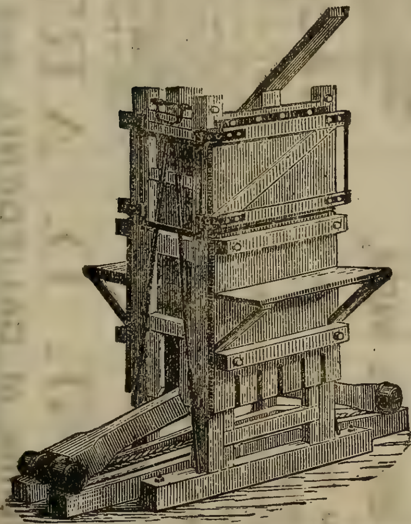
G. M. FALL, Agent, Los Angeles, office U. S. Hotel.

WM. HAMILTON, General Snperintendent.

The "EAGLE" HAY PRESS.

THE KIMBALL MANUFACTURING COMPANY

Owners of the Patent, and Sole Manufacturers on the Pacific Coast.



Several years were devoted by the patentee to the perfection of this powerful press.

Its unprecedented sale at the East induced the KIMBALL MANUFACTURING COMPANY to introduce them in California and the Pacific States.

During the past season a number of important improvements have been made, in order to gain all the power desired in condensing the weight and size of the bales. The wood and iron of the frame has been increased and strengthened, and it is now the most perfect and powerful press in use.

IT POSSESSES OTHER ADVANTAGES:

Being cheap, simple to manage, with no intricate machinery to get out of gear, thus losing time waiting for a new piece. All who have used these presses pronounce them superior to anything used heretofore.

The power applied by means of two levers increases in ratio to the resistance; and as the levers approach a perpendicular position, the power can be scarcely estimated. Three men, with one horse, can bale from ten to fifteen tons per day; each bale weighing from 300 to 350 lbs., using less rope than any other press.

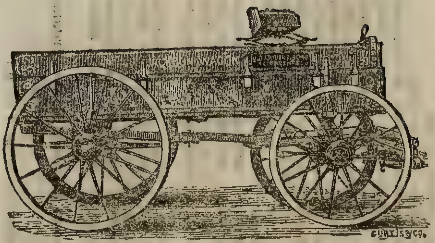
When a bale is pressed and fastened, the follower runs down of its own weight and the bales can be taken out on either side. On account of its great power, it is well adapted for pressing hides, rags, cotton or moss.

The particular attention of wool growers is called to our improved Wool Press, constructed on the same principle, which was tested at the State Agricultural Hall, Sacramento, April 18th, 1871, and stood the test of a bale of wool weighing 550 lbs. Reference, Major Robert Beck.

These presses are manufactured in San Francisco by the KIMBALL CAR and CARRIAGE MANUFACTURING Co., who have a stock constantly on hand.

Prices, $250 for Hay Presses: $350 for Wool Presses.

Weight of Hay Press, 2,500 lbs.; Wool Press, 3,500 lbs. Can be shipped in pieces or set up.



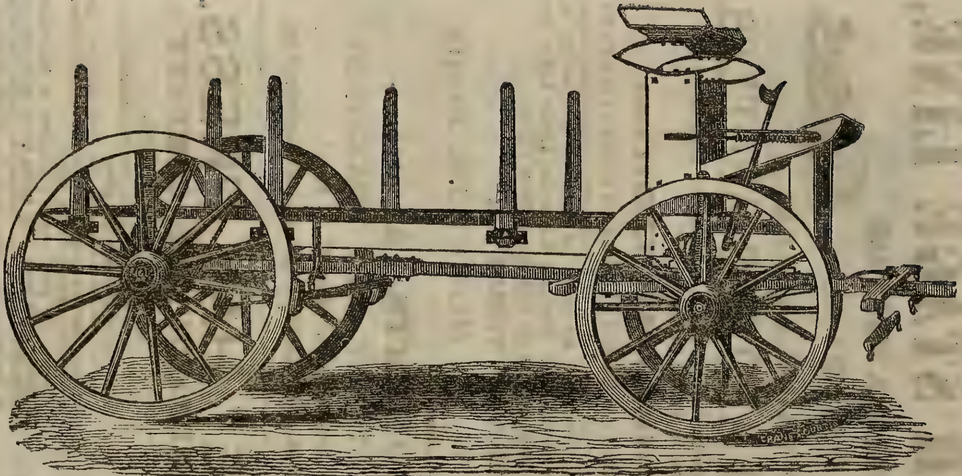
DOUBLE SIDE BOX WAGON.

We also keep the

OHIO TRADE WAGON,

A light Express, Three Spring, with Two seats. Weighs 450 lbs.; steel tire; screw rivets to each spoke; locust hubs; patent axles; very light and strong—the best-made Wagon of the kind in the United States.

Send for Circulars, Prices, &c.



JACKSON, MICHIGAN, WAGONS

Have been proved for years in California as the best Wagon to stand this hot and dry climate. The Wheels have tire rivets; felloes run through hot boiled oil; no shrinkage possible; extra bearing irons and braces, with other improvements.

We have also to arrive EXTRA WHEELS to make a HEADER WAGON of a FARM WAGON. Also, HEADER WAGONS complete. Also, LIGHT and HEAVY Horse Carts. The timber for all our Wagons is selected from second growth, seasoned for years in open sheds. All sizes, from one-horse to six-horse Wagons on sale, with wide and narrow tires with Eastern double boxes; California Racks, with or without sideboards, or gearings only. All Wagons warranted for Two Years.

Prices regular; no abatement; interest if on time. For sale low, by

J. D. ARTHUR & SON,

Corner of CALIFORNIA and DAVIS STREETS, San Francisco, Cal.

Flax Seed & Castor Beans.

The PACIFIC OIL AND LEAD WORKS

Are prepared to **FURNISH SEED** and **CONTRACT** for each year's crop of Flaxseed and Castor Beans at rates that, with proper cultivation and suitable land, will make them among the most profitable crops grown.

Send for their pamphlet about planting these crops.

The highest price is paid by this Company for Flaxseed and Castor Beans delivered at its works in San Francisco.

Linseed Oil and Castor Oil of the best quality are constantly on hand; and Oil Cake Meal, the best food known for cattle and horses, can be furnished at all times in quantities to suit.

For further particulars, address

PACIFIC OIL AND LEAD WORKS,
P. O. BOX 1443, San Francisco.

OFFICE: 3 and 5 FRONT STREET.
WORKS: KING STREET, between 2d and 3d.

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A. M. JEWELL, Superintendent.

FACTORY AND OFFICE,
SOUTH POINT MILLS,
BERRY STREET,
Between Third and Fourth Streets,
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MANUFACTURERS OF ALL KINDS OF

Wooden Pumps and Pipe.

We would call the attention of those about engaging in Farming or Stock Raising to our Pump and Pipe.

The Pumps are made of selected Red wood, (the most durable wood known), are handsomely made, and will raise water 70 feet.

They are superior to Iron Pumps. Do not often get out of order, and are easily repaired.

Our Wooden Pipe will last, when covered up, longer than black iron.

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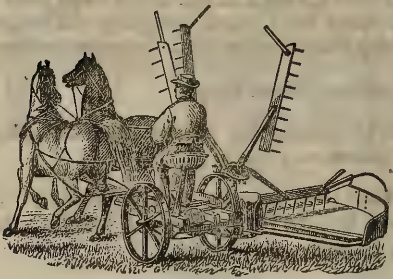
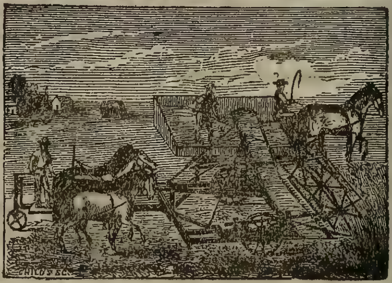
Hardware, Mining Tools, Agricultural Implements.

Sole Agents for the



Buckeye Mower and Reaper.

HAINE'S HEADER.



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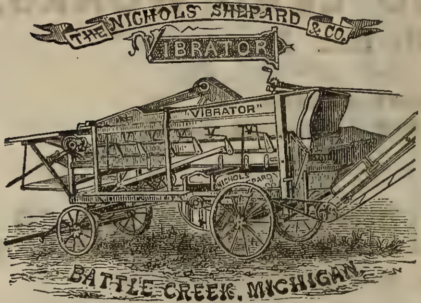

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VIBRATOR, THRESHER,

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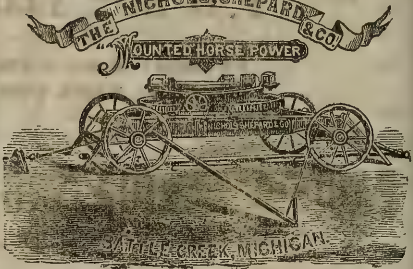

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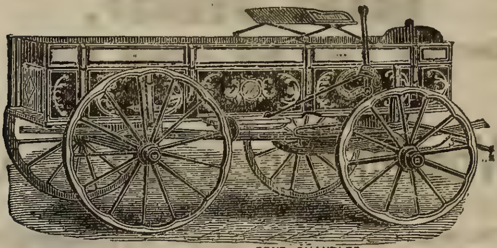

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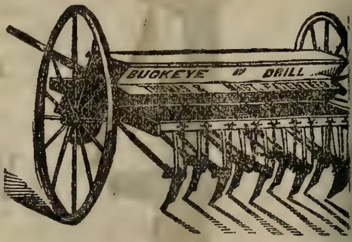
The most thorough-built Wagon offered for sale on this Coast.

Call and examine our large stock, or send for Circulars and Price-List.



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One man and one horse can, with thi machine, put in **Ten to Twelve Acres o Grain per Day.**

Also, Seed Sowers, Gang Plows, Horse Hoes, the Bowdrich's National Feed Cutter, Feed Mills, with a full stock of Agricultural Implements.

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AZTEC
PINOLE.

A Delightful and Healthful Food, prepared from Parched Corn, in the form of a fine Meal.

Drank with hot milk as Chocolate. Eaten cold with milk or cream and sugar.

In mines, in camp, or on the march, drink it with water, adding sugar or salt to suit the taste.

The cheapest and most nutritious food known. Better than oatmeal or any similar dish.

A convenient lunch, as it is always ready at a moment's notice. For the same reason it is particularly desirable for the use of *Ranchers*, Miners, Prospectors, Hunters, Campers, Herdsmen, Pic-Nic-ers, and Travelers.

ASK YOUR GROCER FOR IT.

Retail Grocers can be supplied with it by any wholesaler, or by the

AZTEC COMPANY,

212 SACRAMENTO STREET, San Francisco, Cal.

The Aztec Pinole is by far the most desirable preparation of Corn.

Highly recommended by Physicians for the use of invalids, particularly those troubled with dyspepsia or bowel complaints,

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WM. S. CHAPMAN,

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Farming, Grazing, Timber,

AND RECLAIMED AND UNRECLAIMED

SWAMP LAND

IN ALL PARTS OF

CALIFORNIA.

RANCHES adapted to SHEEP and CATTLE RAISING

OF ANY SIZE REQUIRED.

Special attention given to the location of **COLONIES** on land irrigated and that is adapted to the growth of semi-tropical fruits and other products.

OFFICE OVER THE PACIFIC BANK,

Corner PINE and SANSOME STREETS,

SAN FRANCISCO, CALIFORNIA.

J. W. PEARSON
No. 437 PINE STREET,
San Francisco, owns more than one hundred square miles of good tillable and grazing land in various parts of California, which he will sell or lease in quantities to suit, on more favorable terms than any other land holder in the State, and will answer all communications concerning California land, climate and resources.

The Pacific Lumber and Mill Company are among the largest lumber producers in the State of California, and will deliver all kinds of lumber and building material, or construct houses entire, at all points required, on contract or otherwise.

OFFICE AT THE COMPANY'S FACTORY,
OAKLAND POINT,
OR,
No. 437 PINE STREET, San Francisco.
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T. ELLSWORTH,
WHOLESALE AND RETAIL DEALER IN
LUMBER
FOOT OF MARKET STREET,
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Puget Sound Pine Scantling and Fencing,
Redwood, Sugar Pine, White Cedar,
Shingles, Shakes, Doors and Windows

Will be delivered on board Vessel, or at Railroad Depot, at the Lowest Market Rates.

All those contemplating the use of Lumber will find it to their advantage to give me a call before purchasing elsewhere.

400,000 ACRES

OF

CALIFORNIA and OREGON

LANDS!

FOR SALE BY

E. B. PERRIN,

534 California Street,

SAN FRANCISCO.

The above lands are adapted for Wheat, Cotton, Vineyard, Fruit, Dairy and Grazing purposes.

Those in California lie in the counties of Shasta, Siskiyou, Mendocino, Tehama, Colusa, Sonoma, Santa Clara, Merced, Fresno, Tulare, Kern, San Luis Obispo and Los Angeles.

SAN JOAQUIN VALLEY LANDS.

Much of this land is well adapted to the cultivation of Grain and Cotton. The irrigating canal from King's river is already constructed so far as to furnish water to farmers within two miles of some of it, and proposals have been submitted to irrigate the entire body.

Dairy and Fruit Lands.

A large portion of the above land is all that can be desired for dairy purposes, with plenty of water; while a portion is well suited for the Vine and the different varieties of fruit.

Sheep and Cattle Ranches.

To parties in search of Sheep and Cattle Ranches we can offer great bargains.

Much of the above land having been purchased at extremely low prices, will be sold to actual settlers at prices varying from fifty cents to ten dollars per acre.

Also, a large body of MARSH LANDS for sale, situated near the town of Donahue, on San Pablo Bay, at a low price.

E. B. PERRIN,

534 California Street, San Francisco.

INSURANCE THAT IS SURE.

[*Commercial Advertiser, Buffalo, May 12th*, 1873.]

[*The following article was printed originally under the above caption, as an editorial, in the* COMMERCIA *of the 29th ult.; we reprint it now by request.*—ED. BUFFALO COMMERCIAL ADVERTISER.]

It used to be considered a good plan to publish the *profits* of insurance companies when advertisin their claims upon the public confidence. The idea was that a company which paid large dividends mus be prosperous and well managed and safe. But the Chicago and Boston fires exploded that idea, an changed that advertising policy. Seven-eighths of the small-capital, large-dividend paying companies that did business to any extent in Chicago and Boston, were wiped out by those exceptional disasters. Onl those companies withstood the shock that had been conducted upon the principle of fortifying thei capital by allowing their earnings, after paying fair dividends, to accumulate into large surpluses, availabl for sudden heavy calls upon their treasuries. Now, therefore, instead of advertising their profits, the bes insurance companies may more judiciously publish the amount of their losses, provided only they ar able to point to a clear record, which is the result of paying one hundred cents on the dollar to ever honest claimant, no matter how heavy may have been the aggregate of their losses.

These reflections arise naturally after examining the last published statement of the condition o the Ætna Insurance Company of Hartford. Of all the plucky things in this plucky country, we think thi glorious old institution must be considered as about the pluckiest. What ULYSSES S. GRANT was amon the Union Generals, the Ætna is among insurance companies. It appears to be removed beyond th contingency of real disasters. It may suffer heavy losses—it may encounter misfortunes against whic no human foresight could provide—it may be subjected for a while to suspicion engendered by the env of rivals—but, like General GRANT, the Ætna goes calmly on in the line of duty laid out by itself, neve discouraged, never set back, never for a moment entertaining the idea of abandoning that "line," if i takes the last dollar to meet its honest liabilities. No doubt the Ætna will continue to "fight it out on that line," until the end of time for insurance companies on this continent.

There is something absolutely grand in the resolute integrity of this noble old company. The figures by which its losses are counted are positively startling. We forget the precise sum of its losses by the Chicago fire—but it was above $4,000,000. Every dollar was paid at or before maturity. Following hard upon that unexampled calamity came the Boston fire, bringing a loss to the Ætna which footed up to about $1,600,000, a sum larger than the highest published estimate at the time. No man had to wait an hour for his money. Within sixteen months the Ætna paid losses amounting to $9,000,000. Within a period of fifty-four years, the term of its honored career, its losses have amounted to the royal sum of $39,000,000, every cent of which was royally paid without a murmur. In paying the last $9,000,000, which included the losses by the Chicago and Boston fires, many of which were of course difficult if not impossible to establish by legal proof, not a lawsuit or serious dispute—not even an unpleasant difference—occurred between the company and the insured! All this, we say, is very remarkable. The figures, taken in connection with these facts, present more forcible testimony to the Ætna's past financial integrity and fidelity than any words could give. It stands among insurance companies like the Eddystone among lighthouses, a model for all that would safely defy the dangers of storm and tempest and fire. The Eddystone was built after the form of the British oak, a tree that becomes all the more strongly rooted because of the winds that assail it. Like the Eddystone the Ætna appears to come out of every storm not only unshaken, but the better prepared to meet the next one.

But all this relates to the past. What of the present condition of the Ætna? How has the company paid these enormous and exceptional losses? Why, the stockholders have put their hands in their pockets, and there they found the wherewithal to meet all deficiencies! Since the first day of December, 1871, the stockholders have subscribed new capital to the amount of $2,500,000, and to-day the Ætna's stock is worth $182 per share. Its paid-up capital is $3,000,000, but it has assets amounting to $6,000,000. It has over three-quarters of a million cash on hand and in bank (no need of "shinning" there to find the money for paying any ordinary draft at sight!), and the remainder of its assets are invested in such securities as a prudent man would select for the safe-keeping of the legacy upon which the subsistence of his family would depend, when he should be no longer on earth to take care of them. That is how the Ætna stands now. It is always ready to respond to any honest demand. Can there be a question about the future of a company that has always been conducted upon this, the very highest principle of commercial honor?

We feel it to be a duty, as it certainly is a pleasure, to make conspicuous mention of this time-honored institution, when the facts in regard to its career are so remarkably important and interesting. Almost every one is concerned in knowing where to look for *safe*—which is, after all, the cheapest—insurance; and we feel perfectly justified in expressing a positive conviction that for "insurance that is sure" there is no company ahead of the old Ætna of Hartford.

ÆTNA INSURANCE COMPANY, 14 Merchant's Exchange, San Francisco.

GEORGE C. BOARDMAN, Manager Pacific Branch.

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BY
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PUBLISHERS SAN FRANCISCO.
A FIRST CLASS
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Is one of the Largest, best Illustrated and most Original and Enterprising Agricultural Journals in America, and has no rival on the western side of the Continent. Its circulation is Rapidly Increasing, and it is Very Popular with its Patrons.

A NEW HUSBANDRY,

as it were, is required on the Pacific Coast, on account of its peculiar seasons, soil, climate and topography. The new discoveries, ideas, and useful hints evolved in its rapid progress, are to be observed with interest, and read, as reported in the PACIFIC RURAL, with profit by practical and progressive agriculturists everywhere. Sample copies of the PRESS, post paid, 10 cents. Subscription, $4 a year.

DEWEY & CO., Publishers,

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1873.

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Insurance Company,

OF NEW YORK.

ASSETS, January 1, 1873, $58,550,059,42.

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THE LARGEST, SAFEST AND BEST COMPANY IN THE WORLD.

Its Policies in force number 15,278 more than those of any other company.

The Amount Insured is $82,695,706 more than in any other company.

Its total Assets are $23,613,918 larger than those of any other company.

Its Premium Income is $6,661,796 greater than that of any other company.

Its Income from Interest is $1,289,877 more than in any other company.

Its total Income is $7,961,673 greater than that of any other company.

Its Cash Dividends in 1872 were $2,142,142 greater than those of any other company.

Its Expenses of Management in 1872 were only 6.98 per cent., being 0.55 per cent. ower than in any other company.

Its Expenses, including Taxes, paid in 1872, were only 7.62 per cent., being 2.18 er cent. lower than in any other company.

The Cash Dividend of 1873, now being paid on Policies One Year Old, is larger than hose paid on similar policies by any other company.

The Dividend Results on Old and New Policies have never been equaled by any ther company.

Its Total Cash Dividends, from its commencement, have been $7,876,944 more than hose of any other company.

There are other good life insurance companies, but none can adduce such wonderful igures and results, as evidence of good management and success, as The Mutual Life F New York, which is "the leading Life Insurance Company of this Continent and the odel one of the World."

CASH DIVIDENDS USED IN PAYMENT OF PREMIUMS, 1872,

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The only company in the world in which Life Policies become SELF-SUSTAINING. No Premium Notes or other Questionable Securities. Assets, Dividends, and entire system ALL CASH. POLICIES EXEMPT FROM EXECUTION.

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GRAIN LANDS,

IN THE

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And in the Northern and Southern Counties of the State, at prices ranging from

$2 per Acre upwards.

Strangers calling at his office will be furnished with all desirable information connected with farming in California.

Negotiates Loans upon Country Property.

Combined Assets, $22,500,000.

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Associated for the transaction of Fire Insurance business in the Pacific States, forming the

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R. H. MAGILL, Manager,

Branch Office, 205 *SANSOME STREET, San Francisco, Cal.*

Stores, Merchandise, Dwellings and contents, Mills, Manufactories and other desirable risks accepted on favorable terms.

THE VERY LATEST.

HOME SEWING MACHINE.

THE LIGHTEST RUNNING MACHINE IN THE WORLD!

PRICE $55.

This Machine combines ALL the points of excellence of the older Machines, and for beauty and elegance of finish it has no equal—it makes the Lock-Stitch (alike on both sides)—uses a shuttle and straight needle.

Call and see it or send for a Circular and samples.

E. W. HAINES, Agent,

17 NEW MONTGOMERY STREET, (Grand Hotel Building,) San Francisco.

ACTIVE AGENTS WANTED EVERYWHERE.

WE ALSO CONTINUE TO SELL THE

HOME SHUTTLE SEWING MACHINE

PRICE $40.

The EXCELSIOR

WINDMILL MANUFACTORY,

211 & 213 Mission Street,

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ATTWOOD & BODWELL, - - Proprietors.

The I X L WINDMILL, Swing Vane,

Is also Manufactured at the Excelsior Windmill Works, and is not excelled by any Swing Vane Mill.

SWEEP HORSE POWERS.

LITTLE GIANT. FOR TWO HORSES.

EXCELSIOR. HEAVY. FOR ONE HORSE.

FARMERS. MEDIUM. FOR ONE HORSE.

All made at the Excelsior Windmill Works.

Also, WATER TANKS, all sizes, Windmill and Horse Power PUMPS, Etc.

N. B.—ATWOOD & BODWELL have made a *specialty* of the above Machinery for more than ten years, and are the largest Manufacturers in that line on the Pacific Coast.

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Excelsior Mill Co.

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Country Orders Promptly Filled.

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AND THE

INDUCEMENTS TO SETTLE THERE.

12th EDITION.

[FOR GRATUITOUS CIRCULATION]

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230 Montgomery Street, San Francisco.
1878.

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OFFICE OF THE

CALIFORNIA IMMIGRANT UNION,

230 Montgomery St., Room 23,

San Francisco, California, Sept., 1878.

Our Association has, for nine years, been receiving numerous letters from the States east of the Rocky Mountains, and from all parts of Europe, asking for information about California. All have been answered, documents sent, and every exertion made to give the inquirers a fair statement of the resources of our State, and the superior inducements it offers to those who are disposed to immigrate hither, and use ordinary diligence to build for themselves a home. Charles Nordhoff, in his admirable work on "California," has given a fair and impartial statement of the advantages and disadvantages of our State. His statements, corroborated by the large number of persons who have visited our shores since the completion of the Continental Railroad, have induced a great many in search of a genial climate and a prosperous home, to come here.

The California Immigrant Union, of which the Hon. W. C. Burnett, City and County Attorney, is President, is composed principally of leading business men of San Francisco. Their interests are identified with those of the State at large. Their names are a sufficient guarantee as to the manner in which the business of the Immigrant Union will be transacted, and that the promises its officers may make will be honorably performed.

The measure of its success and usefulness will largely depend upon the voluntary and active co-operation of men of practical ideas and public spirit in the other counties of this State.

One object of the organization is to supply immigrants with the information necessary to enable them to govern their movements after arrival in California.

Valuable and reliable information concerning **Private, Government** and **Railroad** lands can be obtained by application at our office. Copies of our publications will be forwarded, wherever likely to be useful, upon receipt of stamp.

Since the success of the great "Lompoc Colony," in Santa Barbara county, the "Union" has been anxious to obtain a large tract of land in the northern portion of the State, convenient to market, accessible by water as well as by railroad, in order to accommodate the many applicants who visit our office, as well as those in the East and Europe who are corresponding with us, with a view of making their future homes in California.

In order to meet our demands, and to favor those who desire beautiful residence and small farm properties, the Hon. J. Mc. M. Shafter has placed in our hands a portion of his valuable estate in Point Reyes township, Marin county, known so well and favorably as Shafter's Dairy Ranch. It is splendidly located—the Pacific Ocean on the north and west, Tomales Bay on the east, and Drake's Bay on the south—within six hours travel by sailing vessel, and three hours by steamer and rail, via San Rafael and Olema. This property is now being surveyed and subdivided into 20, 40, 80, and 160 acre tracts, and larger tracts, if desired.

It really needs no further advertisement than that which can be found on the back cover of this book. Owing to the mildness of the climate, very ordinary buildings can be made to answer for dwellings; and a shed is all that is necessary for horses and cattle.

Lumber will be supplied on cars, at Olema station, on the North Pacific Coast Railroad—eight miles from the colony—as follows: rough merchantable, (redwood and pine) $15.50 per M.; rustic, tongued and grooved, surfaced, etc., $25.50 per M. Freight from San Francisco to Olema, per steamer and cars, as follows: household goods, per car, $20.00; household goods, per 100 pounds, 30 cts.; groceries, per 100 pounds, 24 cts.

Trains leave San Quentin Ferry, foot of Market Street, daily, 1:45 P.M., for San Rafael and Olema; arriving at 4:29 P.M. Returning, leave Olema 9:18 A.M., arriving at San Francisco at 12:10 P.M. Fare, $1.50.

Sunday excursion trips, leaving ferry at 8 A.M., arriving at Olema at 11 A.M. Returning, leaves Olema at 5 P.M.; arriving in San Francisco at 7:45 P.M. Fare, round trip, $2.00.

The *title* is *United States Patent*. *Climate*, in winter, 40 to 70 degrees; in summer, 60 to 80 degrees. Soil, a dark, rich loam, easily cultivated. *Water*—in addition to the many springs—can be obtained at a depth of twenty-five to forty feet. Artesian water can undoubtedly be obtained by boring from 100 to 200 feet.

Since the formation of the State, such a thing as a failure of crops in Marin County has not been known. Firewood and fencing in the hills at a very moderate cost. Great attention is given in this county to the subject of education. Some of the best public as well as private schools are located here — accessible at all seasons. The markets for grain, vegetables, fruit, poultry and dairy products can be found at San Rafael and San Francisco.

Most of the so-called light occupations which are generally assigned to women are remarkable for either a terrible strain on the nervous system, or for one-sided physical exertion. Teaching, stenography, telegraphy, weaving, operating sewing machines, standing all day behind a counter, type-setting, and other such employments are too hard on the system to admit of being followed for life by women of ordinary physical capacity. Besides, such employments generally admit only the earning of monthly or weekly wages, and afford no opportunities for independent business, with a sure living and a possible fortune in the event of extra success.

Fruit-culture, the drying of fruit, the manufacture of jellies, canning and preserving berries, tomatoes, etc., gathering nuts, raising poultry and eggs, are employments that offer to women independent fields of labor that will neither break down their health nor keep them in perpetual bondage to monthly or weekly wages. We would not like to see American women, or any women in our country, doing rough work in the fields, though riding on a gang-plow is play in comparison with teaching or running a sewing machine. But all such labor may be done by men hired in the season of it, as all our farmers, big and little, hire help at harvest, while they themselves do little else than supervise.

A woman who is the owner of ten acres, two acres of orchard, and devotes eight acres more to grass, flowers and poultry, will find that all the plowing, cultivating, pruning, wood-sawing and heavy lifting can be done by one man in a part of the year; that picking, drying and packing fruit, gathering nuts, making jellies, preserving and canning fruits and vegetables during one season of the year; and milking one or two cows, making butter and raising poultry as a principal business the rest of the year, is easier, pleasanter and more healthful than any city employment. Then, when the year's work is done, and no special disaster has interfered with success, two or three thousand dollars clear profit feels much more satisfactory in the pocket than the savings of weekly earnings behind the counter, the case, the desk or the sewing machine.

Ten years hence there will be hundreds of men in this State, regretting that they failed to buy small tracts of farming land when it was to be had for a mere trifle. There is hardly a county within the State of California that has not within its limits a few acres of excellent land, capable of yielding to a farmer a good return and a luxurious living. These lands can be purchased to-day for almost nothing; ten years from now they will command a price, one that will be beyond the means of the industrious man of limited funds. What is a small farm worth? says one. It is worth a home, a steady resource for the means by which to live and make the same desirable.

Garden fruits are profitable. Large farms are not needed for the purpose of improving these resources. It is, on the contrary, most desirable to secure to California the industrious labor of good citizenship on small farms, and the result of such labor, in light produce, for local consumption.

One-half of the people of San Francisco are living in rented houses, or in lodgings. The money expended for rents and lodgings would buy a small farm for every family, and secure to them an inheritance, from year to year, at once independent and comfortable. If gardens are so productive to the Italian that he can amass wealth in a few years, by peddling the produce, surely a thriving little farm, capable of raising not only garden vegetables, but expensive fruits, could be made lucrative.

One acre of raspberries will yield six hundred gallons of wine, which, if of good quality, is worth from one dollar to a dollar and a half a gallon at wholesale. Blackberries command a good price always, and of the wine the same may be said as of the raspberry. Currants are easily raised, and the soil of the rich little pocket lands among our foot-hills is particularly suited to the culture of the currant-bush.

Small farms secure a thrifty, settled section, where churches and schools can be built, organized, and enjoyed. What a revenue to the industry and wealth of the State, and the several counties, would be secured, if some inducement could be made to those who are "living from hand to mouth," to take up these valuable little spots, and make for themselves permanent, happy homes! The great success of the Western States in rapid improvement and large laboring citizenship, lies in the fact that they could offer to the settler small farms of forty, sixty, or one hundred acres. A man of small means could purchase a farm, stock it, plant it, and get a good start towards independence and wealth in a few years.

Here we can produce two crops annually, in some localities, of certain fruits. We have no long, cold winters to stop work; but, from January to January, a man can find his time profitably employed on his farm.

To enumerate all the advantages which California, in general, offers to the industrious farmer and horticulturist, would occupy too much space.

In compiling this (the 12th) edition we are placed under many obligations to Mr. John S. Hittell, author of "Essay on California"; to Capt. Geo. W. Gift, for selections from his work on "Marin County"; to Hon. Wm. Minis, for extracts from his "Surveyor-General's Report," and to our local and interior newspapers — trusting they will all obtain their reward in the increased prosperity that our State may experience by a careful distribution of this pamphlet.

If there are any who desire information, not included within these pages, they need only to write to this office, and they will receive a prompt reply. For general information, for Eastern and European correspondents, as well as our own population, we would recommend a subscription to the "Pacific Rural Press," "Resources of California," and our weekly "Bulletin," "Call," "Chronicle," "Post," etc.

Respectfully,
WM. H. MARTIN,
General Agent,
230 Montgomery St., Room 23, San Francisco, Cal.

CALIFORNIA

AS A

HOME FOR THE EMIGRANT.

A BRIEF STATEMENT OF

Its Climate, Agriculture, Manufactures, Attractions

AND

GENERAL BUSINESS.

Migration as a Source of Wealth.

Migration has been one of the chief sources of individual wealth in the present century. The old centers of civilization had become overcrowded; the land was unable to sustain the multitude; poverty and misery were the result for a large proportion of the people. The establishment of American Independence, the adoption by the United States of a free government and a liberal land policy, the invitation to Europeans to become citizens, the invention of cheap and speedy means of transportation by land and water, and the dissemination abroad of information about America, led to a great peaceful migration, the like of which had never been witnessed before. In the last eighty years six million five hundred thousand persons have crossed the Atlantic to become permanent residents of the United States, and, at a moderate estimate, they added each, on an average, one thousand dollars to the wealth of the country by merely making their homes here, and much more by the labor which they did after their arrival. Europe was benefited by their departure. There was more room and more comfort for those left behind, and soon there was more trade, because the emigrants prospered in their new homes, and were enabled to purchase many comforts and luxuries which hey never could have afforded if they had remained in their native lands. They also supplied Europe with provisions and the raw material for manufactures much cheaper than they could be obtained from other sources. Thus all parties were benefited.

The Agricultural Lands of California.

No country in the world offers to the farmer greater inducements than California. In general, land is rich and cheap. Such is the mildness of the climate that neither feed nor shelter is required to be provided for stock during the winter season. The grain when threshed lies out in the field, and the necessity of building barns is dispensed with. In most parts of the State the farmer in the winter season need spend but little money in meat provisions, as his gun will amply supply the wants of his household. Quail may be shot by thousands; deer are abundant, and the country swarms with wild duck, hares, rabbits, and other descriptions of game. In the summer time the delicious trout to be caught in the numerous brooks form an acceptable addition to the farmer's table. California wheat is unsurpassed in quality by any in the world, and commands a high price in Eastern and European markets. Two crops are produced from one seeding, the second being termed the volunteer crop, which springs up without any cultivation, from the seed left after the removal of the first crop.

A Few of Our Advantages.

California is pre-eminently the State for farmers who have the means to avail themselves of its advantages.

Our soil is above the average.

It can be cultivated far more cheaply than elsewhere, because most of it can be worked with improved farm machinery.

It has not yet become necessary to go into the woods, and hew out a farm by severe labor with the axe, as open land is plentiful.

Our climate is so mild that expensive dwellings or outhouses are unnecessary.

Shelter for stock is not required in three-fourths of the farming districts.

Grain will stand for weeks after maturing without shelling out.

Threshing is done in the open field.

The grain, having been threshed and sacked, may remain on the ground for months without danger of damage from rain.

A man can work comfortably in the open air almost every day in the year. He does not have to lose month after month of the winter season on account of frost and rain.

Almost anything that grows can be raised in California.

Everything is sure of a market.

Land will sell for more next year than it does now. It is constantly increasing in value.

The bulk of arable land is less than one hundred miles from the sea.

San Francisco is connected, by either rail or water, with every agricultural district in the State.

We have never had any grasshoppers, potato bugs, or disastrous storms.

The people of California are noted for their industry, thrift, intelligence, enterprise, liberality, and general prosperity.

Our school system is second to none in the world.

Church accommodations are ample.

Life and property are as safe as in any State in the Union.

Our laws are intelligent and liberal.

Finally, there scarcely exists a country on the face of the earth where the necessaries, comforts, and even luxuries of life are more certainly attainable or more generally enjoyed than in California.

Value of Land in California.

The average value of an acre of land in the various counties of the State is computed from the reports as follows:

Alameda	$60 00	Merced	$ 3 87
Alpine	3 91	Modoc	2 08
Amador	3 79	Mono	3 21
Butte	7 76	Monterey	7 16
Calaveras	1 18	Napa	12 11
Colusa	6 97	Nevada	2 73
Contra Costa	11 57	Placer	2 00
Del Norte	3 50	Plumas	5 32
El Dorado	3 57	Sacramento	7 53
Fresno	3 20	San Benito	8 76
Humboldt	2 95	San Bernardino	3 11
Inyo	5 08	San Diego	1 19
Kern	2 94	San Francisco	219 12
Lake	5 04	Jan Joaquin	11 14
Lassen	2 64	San Luis Obispo	3 22
Los Angeles	5 15	San Mateo	15 66
Marin	14 44	Santa Barbara	1 89
Mariposa	2 01	Santa Clara	25 04
Mendocino	3 87	Santa Cruz	14 69
Shasta	$3 39	Tehama	$9 43
Sierra	3 81	Trinity	2 68
Siskiyou	4 46	Tulare	2 49
Solano	10 79	Tuolumne	2 84
Sonoma	10 34	Ventura	4 89
Stanislaus	4 79	Yolo	13 05
Sutter	7 30	Yuba	4 65

From this is found the average value of an acre of land in California, which is $10.30.

Area of California.

California is more an empire than a State, with its 188,981 square miles, or 130,927,840 acres. The combined area of the six New England States is but 68,338 square miles, showing that California has an area almost three times as great as this division of the republic. The area of the six Middle States—New York, New Jersey, Pennsylvania, Delaware, Maryland, and West Virginia—is 137,464 square miles, showing that California is 51,517 square miles larger than this section. The combined area of the twelve States forming the New England and the Middle States is 205,812 square miles, showing that California contains an area almost as great as these twelve States. It is 78,135 square miles larger than the whole of Great Britain, the latter being 110,856 square miles. It would make twenty four States the size of Massachusetts, and 145 States as large as Rhode Island.

The State possesses a variety of valuable minerals. The richest mines of the northern hemisphere are here. The annual production of gold is more than $20,000,000, and the production of gold and silver from the Coast in 1877, over $70,000,000. There are also valuable mines of quicksilver, tin, copper, coal, manganese, and beds of marble, slate, sulphur, porcelain clay, soapstone, and asphaltum. In the foot-hills of the Sierra Nevada millions of acres contain gold in quantities sufficient to pay well at some future day. At present, there are many farmers who sluice out the ravines on their farms with profit in the intervals of agricultural labor.

All these advantages must infallibly result in attracting to California a large immigration, and consequently land will rise in value and trade will increase with rapidity, thus securing a large profit to those who settle here soon. But if these anticipations of the growth of the State should prove too sanguine, those who come here will still have the satisfaction of living in a country where they can enjoy life without painful exertion.

Disadvantages.

The country has some drawbacks. There is an occasional drought, about once in seven years on an average; but even then our wheat crop is nearly up to the ordinary yield in most of the Eastern States. When the bare plains shall be covered with trees and cultivated, we can hope for more rain and for more regular seasons than we have at present; and it is probable that irrigating canals, like those of Lombardy, will, in time, supply water from the mountains to large districts. In the Sacramento basin we have occasional floods, but they are little worse than those in the Atlantic States. Earthquakes are not uncommon, but they are usually very slight, and have thus far resulted in very little loss of life, while the number of persons killed in other countries, as in the Mississippi Valley, by meteoric phenomena, such as lighting, tornadoes, and sunstroke, is very considerable every year.

Land Titles.

Land is usually sold in California, not by warrantee, but by "bargain and sale" deed, conveying by the words "grant, bargain and sell," which imply and covenant that the grantor has not previously sold the land, or permitted it to be incumbered in any way since it came into his hands. It warrants that he gives as good a title as he got. But as to the value of the title when the grantor received it, the grantee must take the risk. It is the custom for the grantor to provide an abstract of title, made by a professional searcher; or the grantee gets the abstract, and if it is not satisfactory, the grantor takes it and pays for it. The abstract is submitted to a lawyer, and land should not be purchased without this precaution, and with it the grantee is safe. A poor man should not buy land the title of which is not clear, and he should always stipulate that the search is to cost him nothing if the title is not clear. It is bad policy to buy in a hurry. The broker will often say that somebody else wants the piece, but that is only a trick to induce an inexperienced man to buy quickly. The buyer should always find out what other lands are for sale in the vicinity, ascertain their prices, compare their situations and advantages, and thus make certain that the bargain, when closed, is a good one.

The Extreme Northern Mining Counties.

The mining counties at the northern end of the State are Klamath, Del Norte, Trinity, Siskiyou and Shasta, between latitude 40 degrees and 42 degrees. The first three are very mountainous, and have only a small area of land capable of cultivation. In the eastern end of Siskiyou there are some excellent natural pastures. Del Norte and Klamath front upon the ocean, and have valuable forests of redwood. The California and Oregon Railroad runs through Siskiyou and Shasta. The latter county has some fertile unoccupied land, which will probably rise much in value when made accessible by railroads.

The Main Belt of Mining Counties.

The main belt of gold-mining counties, extending from latitude 40 degrees 30 minutes to 37 degrees, on the western slope of the Sierra Nevada, consists of Plumas, Sierra, Butte, Nevada, Placer, El Dorado, Amador, Calaveras, Tuolumne and Mariposa Counties. The first two are very mountainous over their entire area, nearly all their surface being more than four thousand feet above the sea. The others have their eastern borders high up in the mountains, and their western low enough to include much land valuable for agriculture. All of these counties have fine forests of pine and fir between the altitudes of three thousand and six thousand feet, and the gold mines range generally from one thousand to three thousand feet.

Manufactures.

The factories of California are few and small, relatively. High wages make it impossible to compete successfully with the cheaper labor of the Eastern States and Europe, except in a few articles, most of which are bulky in proportion to cost, or inflammable.

We make blankets, flannels and cheap cloths, because we have an abundance of fine wool, on which, by working it up here, we can save freights to and from New York, three or four commissions, and ten months' time. Yet we export more than three-fourths of our wool, and import all our fine cloths, delaines and worsteds. On the same principle we tan hides and make coarse boots; but we export hides and sole leather, and import fine boots, calfskin and morocco. Furniture, tubs, and coarse baskets are made here. Hemp rope is manufactured here because the material comes from Manila, and can be got here cheaper than in New York, and the freight is high as compared with the cost. Printing paper we make, because we have rags to export. Straw paper is very bulky and cheap, and is made here. Turpentine is inflammable and costly to freight, so we produce it from the pitch of our forests. Resin is made, because its production costs very little when turpentine is distilled. We have an abundance of broom-corn, and, on account of the luxuriant growth of the plant, can make brooms cheaper and much better than those imported. The refuse of our slaughter-houses furnishes cheap material for coarse soap and glue, which we make in abundance. Coarse pottery and tin and copper-ware can be made for less than the freight from New York. Common matches, acids, blasting powder, and giant powder or dynamite, are so dangerous to ship that the high freights protect production on our coast. Shot and lead pipe are made from lead obtained in Nevada and Arizona. The old wrought-iron, which was formerly exported, is now sent to our rolling-mill, which obtains its material cheaper than do similar establishments in the Eastern States. The salt obtained on our coast is ground, and the rice imported for our Chinamen is cleansed, in San Francisco mills. The sugar from the Hawaiian Islands is refined here for the consumption of the coast. The coarse bottles are made at home, but the fine ones are imported. The wire rope which is made to the order of the miners is twisted here. One cotton mill makes coarse muslin. A silk weaver has commenced work in San Francisco, and he will probably thrive by confining his operations to a small scale for several years.

The facts above stated show that there is room for a great development of manufactures on the coast, and those persons who establish themselves here so as to take advantage of the turn of events as soon as it comes, will be in a fair way to make fortunes. The building up of extensive mechanical industry is inevitable. The great distance of California from the North Atlantic will make continued importation of many manufactured articles impossible, and the high tariff, which, on account of the immense debt, must be maintained many years, will be an additional protection.

Business Prudence.

The poor man coming to California should understand that it is difficult to get a start here, but that after a good start is once obtained, life is easy. If he obtains employment, he should endeavor to become very skilful in his business, for an excellent workman gets better wages here and is more sure of employment than in any other country. He should also exert himself to gain and deserve the confidence of his employer, for such exertion will pay well. He should stick to one place and one business, as nearly as possible. If he has a business in which he can invest his savings, or if he needs a home, that is the proper place for it; if not, he should take or send it to a reliable savings bank. Neighbors or friends will want to borrow it, and will offer security and high interest; but the safer plan is to prefer the bank. It requires much experience to know how to lend money without risk of loss. This State is full of men who know scores of methods for making fortunes in a few months, and they will lay out plans that may well delude the inexperienced; but the facts that they live from hand to mouth, have not a foot of ground, and are in debt to everybody that will trust them, furnish pretty good proof that he who lends to them will never see his money again. The man who is making a start should be content with slow and sure profits. There is so much wild speculation in California, that strangers often imagine it is necessary for them to take part in it, and they lose their money before they suspect that they are in peril, and perhaps at the very time when they fancy that they are on the road to fortune. There is no country in which close attention to the strictest rules of business prudence pays better than in California.

The rate of wages is so high that a man with a good trade and economical habits can accumulate a little fortune in ten or fifteen years by putting his money in a reliable bank, which is, next to a home and a man's own business, the best place for money. The savings banks generally pay eight to ten per cent. per annum, and the interest compounds semi-annually, so as to double the principal in eight years. But the savings of every month can always be added to the principal in the bank, and this is an important item in the course of years. California is full of speculators, but the majority do not make ten per cent. interest on their investments, and many lose both principal and interest. Among the multitude there are some cases of brilliant success; but the stranger should look for his guide to the general and not the exceptional result. Speculation is a luxury in which rich men can afford to indulge; but poor men should be shy of it. There are now thousands of poor men who would have been independently wealthy, if they had known enough, when they had money, to keep out of speculation.

General Features of Californian Farming.

The farming of California is unlike that of the Eastern States and Europe. The peculiarities of climate and business exercise a great influence on the agriculture. Little maize is cultivated; few barns are used; little shelter is provided for domestic animals, and little cultivated food is prepared for them; there is no customary rotation of crops; plowing is not possible till after the rains of winter have softened the earth; the amount of land seeded depends, to a great extent, on the earliness of the rains. A considerable share of the grain is raised in volunteer crops. The yield of grain is larger to the acre; and gang-plows are used to a considerable extent. Irrigation is common. Fruit trees grow more rapidly, and bear earlier than in the Atlantic States. Wine, silk, olives, prunes, and nuts promise to occupy a very prominent place among our productions.

The Kind of Immigrants California Needs.

The class of immigrants we most need in California is such as will come to make permanent homes for themselves and families. We want, above all others, persons skilled in a great variety of agricultural pursuits. We want persons skilled in the culture and manufacture of silk in all its departments. We want vine-growers and wine-makers. We want beet-raisers and sugar-manufacturers. We want tea-culturists and fruit-preservers. In short, we want people skilled in the production of all the necessaries and luxuries of life, for we have a State possessed of all the requisite conditions for their successful cultivation. We want such as will bring with them sufficient means, energy and capacity to enter upon business for themselves; such as will buy land and become citizens and practical and prosperous farmers, or build shops and factories, and follow some mechanical or manufacturing occupation. In order to induce this class of persons to leave their homes and business in the Atlantic States and Europe and come here to reside, we must promise them opportunities for making better homes and better business here. Are we prepared in good faith to make such promises? and, having made them, are we prepared in like good faith to fulfil them? So far as natural advantages—such as climate, soil and location—are concerned, we are prepared to answer both these questions in the affirmative. We may also say there are millions of acres of arable land, much of it as good as any now cultivated in the State, lying idle and unoccupied, and that by the completion of railroads already projected, and many of them now being built, much of this land will in a short time be brought within easy distances of good markets for products that may be raised upon it.

Colonies.

Whenever farmers and others intending to come to settle in California are acquainted with each other, if possible, it is advisable that they should move together and settle in the same locality. The advantages of this course are numerous and important. By moving at the same time, reduced rates of fares and freights can often be obtained from railroad, steamship and transportation companies; lands can be purchased in large tracts at wholesale prices; teams and expensive farming implements can be purchased jointly, and, by settling together, much expensive fencing can often be avoided; a neighborhood grows up at once; a certain and rapid enhancement in the value of the land purchased is secured: schools, churches, post and express offices, stores, good roads, and eventually railroads, and all the other conveniences of life enjoyed in older communities are created far earlier than is possible where one settler is located at a time and the growth of population is slow and precarious. By writing to the "CALIFORNIA IMMIGRANT UNION," San Francisco, transportation can always be secured at the lowest possible rates.

California Climate.

The following table shows the mean temperature of January and July in various portions of California and other States and countries, taken from reliable sources:

PLACE.	JAN.	JULY.	DIFFERENCE.	LATITUDE.
	deg.	deg.	deg.	deg. min.
San Francisco	49	57	8	37 48
Monterey	52	58	6	36 36
Santa Barbara	54	71	17	34 24
Los Angeles	52	75	23	34 04
Jurupa	54	73	19	34 02
San Diego	51	72	21	32 41
San Luis Rey	52	70	18	33 15
Sacramento	45	73	28	38 34
Stockton	49	72	23	37 56
Humboldt Bay	40	58	18	40 44
Sonoma	45	66	21	38 18
St. Helena	42	77	35	38 30
Vallejo	48	67	19	38 05
Antioch	43	70	27	38 03
Millerton	47	90	43	37 00
Fort Jones	34	71	37	41 40
Fort Reading	44	82	38	40 28
Fort Yuma	56	92	36	32 43
Cincinnati	30	74	44	39 06
New York	31	77	42	40 37
New Orleans	55	82	27	29 57
Naples	46	76	30	40 52
Jerusalem	47	77	30	31 47
Honolulu	71	78	7	21 16
Mexico	52	65	13	19 26
Funchal	60	70	10	32 38
London	37	62	25	51 29
Dijon	33	70	37	47 25
Bordeaux	41	73	32	44 50
Mentone	40	73	33	43 41
Marseilles	43	75	32	43 17
Genoa	46	77	31	44 24
Algiers	52	75	23	36 47

Monthly Record of the Climate of California, and some other Prominent Points.

Our Eastern and European readers can compare our genial climate with theirs, and at once discover the difference:

PLACES.	January.	February.	March.	April.	May.	June.	July.	August.	Septem'r.	October.	Novem'r.	Decemb'r.	AVERAGE.
San Francisco	49	51	52	55	55	56	57	57	58	57	54	51	54
Vallejo	47	52	53	57	59	67	67	66	64	62	54	47	58
Sacramento	45	48	51	59	67	71	73	73	66	64	52	45	59
Millerton	47	53	56	62	68	83	90	83	76	67	55	48	66
Fort Reading	44	49	54	59	65	77	82	79	71	62	52	44	62
Fort Yuma	56	58	66	73	76	87	92	90	86	76	64	55	73
St. Helena	42	49	56	57	66	70	77	70	66	59	54	51	..
Vacaville	43	53	55	62	66	72	74	73	72	66	60	43	52
Meadow Valley	34	37	41	..	61	66	71	68	57	52	44	36	..
Fort Jones	..	37	43	49	51	61	71	68	62	52	41	..	..
Grass Valley	27	37	38	44	49	52	63	58	53	53	43	36	46
New York	31	30	38	47	57	67	73	72	66	55	45	34	51
New Orleans	55	58	64	70	75	81	82	82	78	70	62	55	69
Steilacoom	38	40	42	48	55	60	64	63	57	52	45	39	50
London	37	40	42	46	53	58	62	62	57	50	44	40	49
City of Mexico	52	54	61	63	66	65	65	64	64	60	55	52	60
Naples	46	47	51	56	64	70	76	76	69	61	53	49	60
Funchal	60	60	62	63	64	67	70	72	72	67	64	60	65
Honolulu	71	72	72	74	76	77	78	79	78	76	74	73	75
Jerusalem	47	53	60	54	66	71	77	72	72	60	58	47	62
Canton	52	55	62	70	77	81	83	82	80	73	65	57	69
Nagasaki	43	44	50	61	69	77	80	83	78	66	53	47	62

ALAMEDA COUNTY.

Lies on the eastern shore of San Francisco Bay. It contains about 500,000 acres. The soil is mostly a rich black loam, susceptible of the highest cultivation. On account of the high quality of the land, and its proximity to San Francisco, it is held at high prices; but it is an excellent investment, as it constantly appreciates in value, often doubling in three years. Many citizens of San Francisco live at Oakland, the county seat, a beautiful city of 31,000 inhabitants. Ferries ply every half hour.

The "Daily Morning Call" says:

"ALAMEDA.—Complaint is made of rust on the low lands, but the wheat crop will be more than an average one, and will probably be ten per cent. in excess of that of 1875–'76. There is a full crop of good barley also above the average; in some sections rank growth of straw and lodging of the grain."

ALPINE COUNTY.

Total population, 1875	914
Real Estate, "	$448,000
Improvements, "	$200,935
Personal prop., "	$204,176
Acres of land cultivated	28,620

This county is very mountainous, and the amount of land suited to agricultural purposes is too limited to make it worth the while of the immigrant to proceed hither in search of a farm.

AMADOR COUNTY.

Total population	10,350
Total valuation of property	$2,510,000
Acres of land enclosed	67,148
Acres of land cultivated	18,820
Number of gallons of wine manufactured	20,250
Number of gallons of brandy manufactured	1,000
Saw mills	4
Quartz mills	18
Number of tons coal mined	29,200
Value of fruit crop	$24,000

The chief business carried on in the county is mining, though there are many well cultivated farms, and situated among the lower foothills are some of the richest valleys in the State. The latest reports in the "Daily Morning Call" say:

"AMADOR.—The condition of the wheat crop is good, and the yield will be about the same as that of previous average good years. The wheat in the vicinity of the Mokelumne River is reported to be especially fine. Barley will probably fall short nearly one-half of the yield of last year. The hay crop, chiefly barley, is thought to be larger than that of any previous season. Corn is especially promising, and bids fair to be very large."

BUTTE COUNTY.

Total population	21,000
Total valuation of property	$9,914,057
Acres of land enclosed	350,000
Acres of land cultivated	210,000
Bushels of wheat raised	2,400,000
Bushels of barley raised	500,000
Bushels of corn raised	36,250
Saw mills	19
Feet of lumber sawed	47,000,000

CALAVERAS COUNTY.

Total population	8,500
Total valuation of property	$2,141,357
Acres of land enclosed	51,033
Acres of land cultivated	16,400
Number of gallons of wine manufactured	56,000
Number of gallons of brandy manufactured	1,585
Quartz mills	33

This county has an average length of forty miles, with a width of about twenty miles. Thickly wooded. Contains some of the best paying mines in the State. The "Pacific Rural Press," in a late number, says:

"CALAVERAS COUNTY.—Crops of all kinds are looking well—never better. No grain sown here later than February."

COLUSA COUNTY.

Colusa County contains an area of 1,520,000 acres. This is one of the most important counties in the famous Sacramento Valley, and is noted for its immense crops of wheat and other grain. The soil is a rich alluvial sediment, except in the western part, which is hilly. This county is rapidly increasing in wealth and population. Land in cultivation in 1876, 236,585 acres; in wheat, 242,-

609 acres, yielding 4,600,000 bushels; in barley, 34,802 acres, yielding 806,495 bushels, and in hay, 17,414 acres, yielding 28,325 tons. Population, 15,000.

The S. F. "Call," July 28th, 1878, says: "Rust and blight have wrought havoc with wheat, reducing the expected crop twenty per cent. The condition will be about two-thirds as good as that of two years ago. Barley is in good condition, but a portion of the crop was damaged by the overflow of the lowlands."

CONTRA COSTA COUNTY.

Is situated on the Bay of San Francisco, and contains about 480,000 acres. Her annual yield of wheat, barley, etc., compare favorably with that of any section of California. Her facilities for water transportation are excellent. Deep-water vessels are loaded at Antioch, and at Martinez, the county seat. The agricultural products include wheat, 78,378 acres, yielding 1,354,961 bushels; barley, 20,708 acres, yielding 697,640 bushels; oats, 2,690 acres, yielding 86,118 bushels; hay, 34,906 acres, yielding 49,015 tons. Population, 10,300.

The S. F. "Call" says: "An increase of from five to ten per cent. in the acreage in wheat. The yield will be per acre but slightly above that of 1875-6. The crop is but little injured by rust, but the long continuance of wet weather in spring shortened the yield on low lands. On high gravelly lands the crop is first-rate. In barley there is about five per cent. less acreage than in 1875-6. This crop will yield well to the acre. Another correspondent says: The wheat fields on adobe soil are weedy, and suffer more or less from rust, but in most instances the grain was sufficiently advanced toward maturity, and the damage from rust is less than usual. The barley yield, I think, will be fully up to that of 1875-6. The decrease on adobe soil will be fully compensated by the fine growth on sandy and hillside lands. The grain has long heads, many will average from 68 to 75 grains per head."

Good Yields in Contra Costa County.

"The following is from the Antioch 'Ledger' of Saturday: This has been a most remarkable year for farmers. The wheat yield is most gratifying, and prices good. Many farmers will realize a profit from their grain amounting to the asking prices of their ranches last fall. One instance of productions among the scores of others is that of L. J. Barkley of Eden Plain. He rented the Bowman ranch near the Point of Timber store; one quarter section was fallowed, and from this he harvested 2,166 bags of wheat, which averaged 141½ ℔s. per bag. On another quarter section of the same ranch which was late sown, finished on the 18th of March, he threshed 1,400 bags. His home ranch at Eden Plain was equally productive. Mr. Barkley sends us the following summing up: On 520 acres of land he harvested 5,215 bags of wheat, which, at $1.62¾, amounted to $11,733, or nearly $23 per acre. This shows what our land will do with proper tillage, and a rainfall of fifteen inches. M. Grennan last spring advertised 320 acres of land adjoining the Marsh Grant for sale at $25 per acre, including the growing crop. No one purchased the land, and he will now realize for the crop nearly as much as he asked for the land and crop."—[Bulletin.

DEL NORTE COUNTY.

Total population	6,000
Total valuation of property	$697,565
Acres of land enclosed	11,058
Acres of land cultivated	2,576
Saw mills	9
Feet of lumber sawed	10,000,000

This county is fifty miles long by thirty miles wide. It contains a number of small fertile valleys, and a large extent of rich prairies. The county is well timbered with redwood, spruce, and pine. Fruit, grain, and vegetables of all descriptions flourish here.

EL DORADO COUNTY.

This county has an area of 2,000 square miles. Hitherto, the chief interests have been mining and lumbering, but agriculture is now extensively pursued. Nearly all the cereals, fruits, and vegetables are raised. Half this county would be adapted to agricultural purposes, if cleared of timber. The county abounds in good wagon roads, and communication with all parts of the State is easy. Land under cultivation, 13,706 acres. Population, 10,000.

July, 1878.—The total crop to be threshed is estimated at 7,500 bushels of wheat, and 10,500 bushels of barley, a moderate yield for the season. Considerable grain was also harvested for hay.

FRESNO COUNTY.

Fresno County contains 8,640 square miles, or nearly 5,530,000 acres, with an estimated population of 8,000 inhabitants. The part which is included in the great San Joaquin Valley, and is susceptible of cultivation, amounts to about 2,600,000 acres. In addition to the more common crops of cereals and corn, these plains will produce in perfection the orange, lemon, fig, lime, and other tropical fruits. Raisin culture promises soon to be one of the great features of this county. Three crops of tobacco can be raised a year on the same land. Several large canals have been constructed, and thousands of acres of land will soon be provided with a water supply all the year round. Land cultivated, 1876, 63,869 acres; in wheat, 32,944 acres, yielding 296,860 bushels; in barley, 24,652 acres, yielding 327,960 bushels; in hay, 5,816 acres, yielding 6,328 tons; wool, 2,000,000 pounds.

"FRESNO, April 20th, 1878: Dan Fuller, of the Central Colony, brought to this office, last Sunday, two bunches of barley, one of oats, and one of alfalfa, which we believe will beat anything in the State. One bunch of barley grown on land that was irrigated before planted, now over four feet in height, containing 228 stalks, each stalk containing a head of grain from three to six inches in length, and the whole growing from one kernel of grain. The barley grown on unirrigated land was about six feet in height."—[Fresno Republican.

In addition to the "Central California Colony," located, in 1875, under the auspices of the "California Immigrant Union," Mr. J. P. Whitney is organizing the

"Washington Irrigated Colony," on a tract of land immediately adjoining on the south. The prospects for a large colony are very good. With plenty of water, both of these colonies will prosper.

HUMBOLDT COUNTY.

Total population	18,000
Total valuation of property	$5,115,616
Acres of land enclosed	85,460
Acres of land cultivated	21,016
Saw mills	20
Feet of lumber sawed	64,000,000

This county is fifty-six miles long and fifty miles wide. Contains 1,800,000 acres of land. Near the coast it is covered with forests of redwood, spruce and pine. It abounds in elk, deer and other game.

INYO COUNTY.

Total population	3,800
Total valuation of property	$1,039,134
Acres of land enclosed	8,111
Acres of land cultivated	4,400
Saw mills	4
Number of feet of lumber sawed	3,828,000
Quartz mills	4
Tons of quartz crushed	96,000

This county is noted for its fine agricultural land in the vicinity of Owen's Lake. It extends from the mouth of Owen's River the whole length of the valley north into Mono County.

KERN COUNTY.

Kern County occupies the southern part of the great San Joaquin Valley. This county contains a large extent of very rich farming land, which would have been earlier brought under cultivation had there been facilities for the transportation of its products. The Southern Pacific Railroad now runs through it. Fine facilities for irrigation are afforded, and all the cereals, vegetables and fruit of the temperate and semi-tropical climes can be successfully cultivated. In 1876, there were 18,000 acres cultivated. In wheat, 2,000 acres, yielding 40,000 bushels; in barley, 6,000 acres, yielding 180,000 bushels; and in hay, 4,500 acres, yielding 27,000 tons. Population, 8,000.

LAKE COUNTY.

This is a small county, containing 975 square miles, taking its name from Clear Lake, which is twenty miles long by ten to twelve broad. The chief interests are dairying and cattle-raising. Agriculture is, however, also extensively carried on, as may be seen from the following figures: Land under cultivation in 1876, 15,854 acres. In wheat, 4,316 acres, yielding 93,291 bushels; in barley, 2,874 acres, yielding 75,010 bushels; in corn, 404 acres, yielding 12,665 bushels; in hay, 7,819 acres, yielding 10,197 tons. Population, 5,600.

"LAKE COUNTY.—During the past few weeks rust has attacked the late-sown wheat, and almost destroyed the yield of many of the fields. The early-sown wheat has escaped without serious damage. This is the first time in this county that rust has ever had any severe effect on the crop, and as the season has been a most favorable one, the farmers are at a loss to determine the cause of the blight to the wheat. The hay has all been cut, and the yield is very large. Corn has done well, and an average crop is expected. Potatoes promised well, but the army worm has lately appeared, and may cause somewhat of a shrinkage."—*Morning Call*, July 28th.

LASSEN COUNTY.

Total population	2,500
Total valuation of property	$1,221,901
Acres of land enclosed	49,800
Acres of land cultivated	13,594
Saw mills	5
Feet of lumber sawed	2,000,000

In this county are located the lands of the "Northern California Colony"—known as the "Lassen County Land and Flume Co." The Company's land is located between Honey Lake and Eagle Lake. This Company has already brought out sufficient water to irrigate a large quantity of land, and is now so extending its works as to be able in the near future to furnish all the water that will be needed for the continuous and thorough irrigation of a much larger area. The water will be supplied by the Company to actual settlers upon reasonable terms, and in such quantities as may be required. The management consists of the following well-known citizens: Hon. Eugene Casserly, President; David Porter, Treasurer; E. C. Runker, Secretary; William H. Martin, Land Agent, San Francisco; Milton Santee, Resident Agent. The Board of Directors are Hon. T. G. Phelps, R. P. Clement, Hon. Eugene Casserly, David Porter.

It is the wish of the Company that each settler upon the land should become a stockholder of the Company, so that the owners of the land shall eventually be the owners of the water, and thereby prevent the possibility of any monopoly of water or extortionate charges therefor.

The lands upon which the water is already introduced are now offered for settlement in small farms. We say "small farms," for in offering the lands the Company desire to impress upon those wishing to purchase, the fact that a farm of 50 acres thoroughly irrigated will produce more vegetation and will carry more stock than a farm of 160 acres without irrigation. But while the Company recommend settlers to content themselves with small tracts, it will not restrict them in their purchases. The lands will be so subdivided that each settler, whether the owner of 50 or 160 acres, will have a frontage on some public road, and be within easy access of abundant irrigation.

LOS ANGELES COUNTY.

Total population	31,600
Total valuation of property	$15,738,752
Acres of land enclosed	52,754
Acres of land cultivated	81,450
Value of fruit crop	$673,000
Number of bearing orange trees	48,850
Number of bearing lemon trees	8,350
Number gallons of wine	1,525,000
Number gallons of brandy	60,000

Orange.

"The people of this settlement never were happier. Their all is invested in orange orchards, and this being the first season that they have had an unlimited supply of water they are naturally in ecstasies. The new Santa Ana ditch is working to the satisfaction of all. It is as large, some say larger, than necessary. Ten acres of orange trees that were planted four years ago, changed hands, last week, at $6,000. The land was worth about $10 an acre when the trees were set out. I mention this sale to show you how fast a field will grow in value, set out with orange trees."—[Los Angeles Express.

Honey.

"It is reported that there are at least 5,000 stands of bees in the county, and as the bee feed is abundant, we may look for the maximum product from each stand, which is at least 200 pounds. Say the price will average eight cents per pound, which will make the handsome sum of $60,000. The apiaries in this vicinity never had a better prospect. The mountains are covered with the choicest bloom for feed, and the bees are in the very best condition. A large quantity of honey has already been taken from the hives and shipped. Mr. Shattuck has gathered 4,800 pounds from one of his apiaries, and he claims he will get 80,000 pounds of honey this season."—[Los Angeles Herald.

The Los Angeles "Republican" says: From an acre and a half of blackberries Frank Trapp informs us he is now gathering 190 pounds daily of fine fruit. He estimates that the tract will yield at the rate of 140 pounds daily, for thirty days, making over two tons of fruit, or 2,800 pounds per acre.

The Indiana Colony

Is a beautiful example of thrift, high cultured taste and refinement. It is very young yet as a settlement, having about sixty families, but interests and delights all who visit it. It represents a true Yankee type slightly improved by passing over the great prairies. It, like Compton, Anaheim, Florence, Westminster and other thriving settlements, has no saloon or liquor traffic, and the common voice is "none is needed."

MARIN COUNTY.

Total population	10,500
Total valuation of property	$7,907,516
Acres of land enclosed	310,660
Acres of land cultivated	15,697
Acres of land in wheat	22,000
Bushels yielded	41,250
Acres in barley	1,500
Bushels yielded	47,000
Pounds of butter	3,553,350
Pounds cheese	250,000

In this county is located the land of the "Drake's Bay Colony," or Shatter's Rancho, an account of which is given in another part of this book. The owners of land in this county generally hold it at high prices; grazing farms in the hills may, however, be bought at a reasonable figure, and the profits on dairy products are so large that almost any farm will pay for itself and cost of stocking in two or three years. A fine map of Marin county, showing the Shafter rancho, (Drake's Bay Colony) may be found on pages 16 and 17.

San Rafael is the county seat of Marin county. It is fifteen miles from San Francisco.

A Marin Dairy Ranch.

The San Rafael "Journal" supplies the following particulars of the dairy ranch of A. J. Pierce at Tomales Point: The ranch has about 2,200 acres, and the usual dairy is 300 cows. Last year Mr. Pierce milked 277 cows; the product was 60,000 pounds of butter, the net sales of which amounted to $17,431. The other products were about as follows: Six fine colts, mostly McClellan. Mr. Pierce has a McClellan stallion and several brood mares of the same stock; about twenty-five horses, all told, among them some three-year-olds as handsome as ever pulled a gentleman's buggy; raised sixty-four calves; has a thoroughbred Durham bull by Redmond's Lalla Rookh, and his corral of cows, which has a very high average grade of stock, shows plain streaks of Durham and Devon blood. It costs $10 the first year to raise a calf, and is only done to get improved stock. Pork raised was about 30,000 pounds, which sold for $1,500. Beef sold during the year $500. Average product of eggs, a box (fifty-four dozen) a week, for seven months, at not less than $12 a box. Raised thirty acres of potatoes, and cut 150 tons of hay. Mr. Pierce farms 125 acres.

Marin County Logic—The Ups and Downs of a Stock-broker.

OVER IN THE REDWOODS OF MARIN, April 9th, 1877.

Editors of the "Argonaut": Life in the country is now complete—we have the "Argonaut."

You are having hard times in the city? I know what that means. To the sensitive mind it is humiliation to one's pride; it is agony in the present, dread of the future, distrust of man, and doubt of God's goodness.

I have lived in your city, and I have been poor. I have tasted the bitter waters of personal mortification, and I have drunk to the very dregs that cup of poverty which is so bitter to those who have seen better days.

Now I am independent, wealthy, rich in health, strength and moral courage. I have a home and an income; I am contented and happy. If it will not occupy too much space in your broad and clear-typed columns, I will give you a chapter in my history, and show some of your strugglers in the maelstrom of artificial life how easy it is to get rich.

I had graduated at Yale; had inherited wealth; had married from a luxurious home an accomplished girl. We chose San Francisco for our home; the Occidental and Grand Hotels our resting place. Stocks was my vocation; babies and society occupied my wife's time.

I was successful, and had a host of friends. I was popular to the highest point of good fellowship. My wife was the "dearest" woman at a lunch party—the "sweetest and best of women" when dressed in her diamonds and swinging her costly trails of satin, silk and velvet. Gentlemen seldom refused my invitations to dinner—never to drink; and many so far honored me with their confidence as to borrow my money.

Five years ago there came to me overwhelming reverses. I lost my money, lost heart, lost friends—lost everything but my children (two boys) and my wife's love.

Our luxurious hotel furniture, my wife's dresses and jewels were the only things left of our fortune. These were spared from sacrifice to keep the secret from my wife. Anxious days, sleepless nights, revealed my troubles to her finally, but not until I was utterly bankrupt.

Finally I mustered enough of courage to tell my wife of our ruin. I expected tears; I feared reproaches—for her fortune had gone with mine. I met smiles and cheerful words.

"Good!" said she; "now we will go picnicking over in Marin."

We gave up our rooms, bought an army tent, went to that most charming of all glens on Paper Mill Creek, in Marin County, with enough cooking utensils, coffee, sugar, flour, blankets and etceteras to last three months.

Thus we eased down our fall to our city acquaintances—we were picnicking in the country.

My wife, rosy in health, could do her own cooking and washing, I could chop the wood and make the fires, and our seven-year-old Bob could wash the dishes and help his mother—because we were picnicking, and no one knew we were poor.

Romance justifies labor, even to the rich.

My wife became the manager, and when I talked of the future, said to me:

"Now, my dear old boy, you had all the trouble of managing for eight years, now let me run the craft for one year; you just board with me; pay your board; I will trust you till you find employment. All I ask is one year."

Five years have passed, and we are now the owners of five acres of land upon the line of the North Pacific Coast Railroad. Our house is roomy and comfortable. Our two boys have a girl baby for a playmate. Two acres and a half of our land is garden and orchard. We have fruit in abundance. We raise our own vegetables. Our garden is watered from a living spring. A group of splendid redwood trees is upon one corner of our little farm. Above us on the mountain side are great laurel and bay trees, with their rich perfumes; and the little picture home is grandly set in a framework of mountains covered with chaparral of greenest shrubs. Tamalpais stands up proudly for our background; the bright blue waters of the bay stretch out in brilliant perspective before us. We are passing rich, with five of God's beautiful and fruitful acres beneath our feet. We look up at night to the jeweled canopy of heaven, and every gem that glitters there is all our own.

It was accomplished thus: My wife sold her piano for $400; the balance of the furniture brought $500; to her lady friends she sold her laces and dresses, her rings and her ornaments, till she gathered together the sum of $1,700. The farm cost eighty dollars an acre—$400. The house contains a parlor, with book-room attached; three bed-rooms, with spacious kitchen, sunny dining-room, closets and pantries, and all at a cost of $950; $100 was devoted to a substantial picket fence; $40 worth of galvanized iron pipes, put together with screws, by myself, gave us complete water-works. We paid $65 for a cow-barn, I acting as assistant to a competent carpenter; $35 purchased us a good milch cow, and a heifer calf, now grown to cowhood, gives us an abundance of milk. Our fruit trees are five years old, and cost us to plant $100. We paid $10 for chickens, and our establishment was complete. Our house was unfinished; we had no stores, but we had a roof over our heads, and five acres of soil to which we held title in fee-simple.

I had had three months' leisure, I had gained heart and confidence, and had found in my wife a clear-headed business woman. I went then to San Francisco, and obtained a situation at $150 a month.

The five years have been five happy, uneventful, prosperous years. Our house is furnished: a piano replaces the one sold: a horse and spring wagon is our equipage; our orchard is bearing fruit; we have butter, eggs, chickens, milk, cream, fruit, vegetables—all of our own raising. Our wood is cheap, water free, and taxes light. We keep a man servant, who more than pays his wages in our small farming, the produce of which he sells. My wife has no bills at the White House, and I have neither wine, livery, or club bills to pay. I earn something by literary contributions to the press. We take the leading English reviews, the "Nation," "Harper's Weekly" and the "Argonaut."

Our children are being educated by a country schoolmaster, who graduated at Harvard, and to whose salary (paid by the county) a few neighbors and myself add a small stipend. Our children are strong, healthy and well behaved. We are happy, independent and contented. We have a bank account, and are steadily progressing to a position where we may laugh at the frowns of fortune, and snap our fingers at the conventionalities of society.

Marin County is picturesque, romantic and healthful. Its lands are cheap and easily accessible. There are hundreds of beautiful valleys where comfortable homes may be had. Our whole expenses are within a hundred dollars per month, and we have every comfort and luxury that reasonable mortals can desire.—[Argonaut, San Francisco.

MARIPOSA COUNTY.

This county has its eastern extremity in the high Sierras, and its western portion in the San Joaquin Valley; contains 1,440 square miles, and is a mining and agricultural county. The Yosemite Valley is situated in this county. Land under cultivation, 1876, 3,805 acres, including 303 acres in barley, yielding 7,350 bushels, and 3,075 acres in hay, yielding 2,245 tons. Population, 5,000. Lands under cultivation, 1878, 8,400 acres. Total valuation of property, $7,408,438.

MENDOCINO COUNTY.

Mendocino county is about 70 miles long, from north to south, with an average breadth of 40 miles. Area, over 2,000,000 acres. Population, 11,500. The surface of this county is mountainous and generally covered with heavy timber. The valley land is limited, but extremely fertile. Lumbering is the chief industry. Annual product about 64,000,000 feet of lumber and 15,000,000 shingles. The home market requires nearly all the agricultural products raised. The climate is mild and equable. Land under cultivation, 1876, 49,821 acres. In wheat, 12,350 acres, yielding 252,700 bushels; in barley, 7,920 acres, yielding 194,240 bushels; in oats, 9,080 acres, yielding 186,300 bushels; in potatoes, 1,880 acres, yielding 5,300 tons; in hay, 15,120 acres, yielding 20,148 tons, and in hops 480 acres, yielding 723,900 pounds.

"The wheat now being harvested is of superior quality, and the yield per acre unusually large, some crops being estimated as high as sixty bushels. Much lowland cut for hay, hence it is supposed that there will be a decrease compared with last year."—[S. F. Call, July, 1878.

"One of the finest farms is owned by J. B. McClure. He has 400 acres of grain which is hard to beat in any county.

This is the largest valley in the county, and the most wealthy. Hop-growing is quite an industry in this and adjoining valleys, there being some three or four hundred acres grown in all. Ukiah has an excellent mineral spring about three miles east of the city. The water is quite warm, and the spring presents the appearance of a boiling kettle of water. In taste it resembles the Bartlett springs. The owner has a good hotel, and a number of cottages for the accommodation of guests, which are quite well filled." —[Rural Press.

MERCED COUNTY.

Merced county is situated in the fertile San Joaquin Valley, and partakes of its general character. The surface is level and the soil fertile. Wheat and other small grains are raised in large quantities. The S. P. R. R. runs through this county from north to south, and population is coming in rapidly. Two crops in a season are frequently raised with irrigation, it being nothing uncommon to raise a crop of barley following one of corn, on the same ground in one season. In 1876 there were 360,733 acres cultivated. In wheat, 300,000 acres, yielding 4,500,000 bushels; in barley, 40,000 acres, yielding 600,000 bushels; in rye, 6,000 acres, yielding 90,000 bushels; in hay, 12,000 acres, yielding 15,000 tons; sheep, 278,080; population, 7,000; area, 1,975 square miles.

"A larger yield of wheat than in any previous year by five bushels. Yield twenty-five per cent. larger than that of year before last. The barley crop is also one-fourth greater than that of 1875-6. Also a fine yield of rye, of which 10,000 acres were sown. Quality wheat excellent. No Mohave winds to injure us yet."—[S. F. Call.

MODOC.

Total population	2,870
Total valuation of property	$1,038,607
Acres of land enclosed	47,680
Acres of land cultivated	18,245
Saw mills	9
Feet of lumber sawed	3,500,000

Fine trout in large numbers are now running up all the streams putting into Goose Lake, Modoc county, and salmon are plentiful in Russian River.

MONO.

Total population	1,000
Total value of property	$617,330
Acres of land enclosed	21,578
Acres of land cultivated	25,000
Saw mills	5
Feet of lumber sawed	10,000,000

MONTEREY COUNTY.

This is one of the best dairy and wheat-producing counties in California. Rail and water communication with San Francisco. No failure of crops has ever occurred in Monterey. On the bottom lands it is not uncommon for the harvest of whole fields to average 60 bushels to the acre. Dairying is extensively carried on in the foothills. Land cultivated, 1876, 170,300. In wheat, 90,000 acres; in barley, 40,000 acres; in oats, 5,000 acres; and in hay, 5,000 acres, yielding 10,500 tons. Area, 3,000 square miles. Population, 15,400.

"Too much rain, and in some localities rust, have caused a considerable shrinkage in the wheat and barley yields of this season. A reliable correspondent places the falling off in condition of the wheat, that is, the quality, at fifty per cent. from 1875'-76, and twelve per cent. for barley. Another corroborated this estimate as to wheat, but places the figure on barley at twenty-five per cent., and a third estimates the reduction on wheat at forty per cent., and considers the barley crop as ordinary, but inferior in quality to that of the year before last."—[S. F. Call.

NAPA COUNTY.

Area, 828 square miles. The land is extremely fertile, and most of it in a high state of cultivation. Napa county is famous for its magnificent vineyards. There is much land in this county to be had cheap; but the excellent climate, high cultivation, first-class market facilities, and other advantages of Napa are causing the land to continually appreciate in value. Napa is also noted for its medicinal springs, which attract thousands of visitors every year.

Land cultivated in 1876, 54,175 acres. In wheat, 30,565 acres, yielding 520,310 bushels; in barley, 4,555 acres, yielding 108,475 bushels; in corn, 1,940 acres, yielding 47,670 bushels; and in hay, 14,970 acres, yielding 20,305 tons. Population, 14,500.

Hardy Oranges.

Notwithstanding the great severity of the weather during the last week, orange trees at Hon. M. M. Estee's place, about four miles from Napa, in a northerly direction, were uninjured. Mr. Estee has also some lemon trees, and although they were well protected by corn stalks, they could not withstand the heavy frosts, and were killed to the ground. The orange trees were unprotected.—[Reporter, Jan. 12th.

"Excessive rains during the winter and a portion of the spring, and an unusually cold spring, have had serious effects both on wheat and barley. The wheat will probably be fully ten per cent. and the barley twenty-five per cent. below the yield of the year before last."—[San Francisco Morning Call.

NEVADA COUNTY.

Total population	22,000
Total value of property	$6,898,043
Total acres enclosed	81,000
Total acres cultivated	12,000
Saw mills	28
Lumber sawed (feet)	30,000,000

"All grain sown in this county this year was for the purpose of making hay. It is now all harvested. Hay crop, including grass hay, will be from 2,000 to 3,000 tons." —[Call.

PLACER COUNTY.

Placer county is noted for its fine climate. Grapes equal to any in the world are raised in the foothills. The mountains are rich in mineral, and generally covered with heavy forests of pine and cedar. That part of the county embraced in the Sacramento Valley is devoted to agriculture, and produces immense crops of cereals. The water is good, and transportation facilities are excellent. For many years gold mining constituted the principal resource of this county; but now, the wealth of the soil having been proved, fields, orchards, and vineyards occupy abandoned mining ground. The railroad facilities are unsurpassed, the Central Pacific traveling the whole length of the county, and having twenty stations in it, while the Cal. & Oregon R. R. runs through the valley part. Area, 1,386 square miles.

Land under cultivation, acres	45,033
Total valuation of property	$6,789,966
Population	18,325
Saw mills	25
Lumber sawed (feet)	21,670,000
Wine manufactured (gallons)	59,812

PLUMAS COUNTY.

Total population	6,000
Total value of property	2,062,165
Acres of land enclosed	96,000
Acres of land cultivated	5,730
Saw mills	9
Feet of lumber sawed	3,000,000

This county has an area of 2,000 square miles. It is one of the best timbered counties in the State. It contains many well sheltered, fertile valleys and rich meadow land suitable for agricultural and grazing purposes.

SACRAMENTO COUNTY.

Most of this county is level prairie or bottom land, susceptible of the highest cultivation. Area, 650,000 acres. The county is noted for its immense grain product, and abundance of fruit. Its market and transportation facilities are equal to any in the State. Sacramento City is the center of the railroad system of California, and the capital and second city in the State. The climate is mild and pleasant. The islands and banks along the Sacramento River are, when reclaimed, of unparalleled fertility, their productions being immense and their crops certain. 84,380 acres of land were cultivated in 1876; in wheat, 15,174 acres, producing 224,877 bushels; in barley, 44,086 acres, producing 793,548 bushels; in oats, 2,115 acres, yielding 41,146 bushels; in corn, 2,153 acres, yielding 70,440 bushels; in pea-nuts, 310 acres, yielding 85,800 pounds; in potatoes, 1,341 acres, yielding 13,651 tons; in hay, 32,965 acres, yielding 33,203 tons; and in hops, 399 acres, yielding 638,446 pounds. The value of the fruit crop is $175,135. Population, 38,000.

SAN BERNARDINO COUNTY.

This is the largest county in California, containing nearly 15,000,000 acres. The arable portion is small in proportion, but is exceedingly fertile. The climate is delightful. No fogs or harsh winds. Semi-tropical fruits of all kinds arrive at perfection in San Bernardino. Railroad communication with San Francisco. There is abundance of running water, and a large number of artesian wells have been bored. Barley is sown here in January, and after taking off a crop of 40 to 60 bushels to the acre they plant corn on the same land, and get the second crop fully ripened, often 40 or 50 bushels to the acre. Land under cultivation, 1876, 20,000 acres. In wheat, 4,000 acres, yielding 60,000 bushels; in barley, 8,000 acres, yielding 240,000 bushels; in corn, 1,000 acres, yielding 40,000 bushels; and in hay, 5,000 acres, yielding 15,000 tons. There are 2,300 lemon and 1,900 orange trees bearing. Population, 12,500.

The wheat crop this year is thought to be about the same as that of the season before last. Barley will probably be five per cent. less.

In this county is located the famous "Cucamonga Colony" and the "San Bernardino Colony," both being well supplied with water, and immediately on the Railroad, having "Arizona" for a market. with the city of Colton as a depot. These colonies are being managed by the California Immigrant Union of San Francisco. Mr. E. P. Norwood is resident agent of the former, at Cucamonga, and Mr. Edward G. Judson resident agent of the latter, at San Bernardino.

SAN BENITO COUNTY.

Total population	5,000
Total valuation of property	$4,557,507

The condition of the crops in San Benito county never was better; more crops are in grain—mostly wheat—than ever before. A large crop of hay will be cut. The spring clip of wool is coming in, and, though light, shows some good quality. Cattle and sheep are in good condition and quite plenty. The feed is excellent. As the weather settles, new roads will be opened and improved, under the new road law. The quicksilver mining interests will receive more attention. Already business has revived, under the extensive preparations for the coming harvest, which for all products it is estimated will be the largest ever seen in this section. Total rainfall, 17.07 inches.

Every available acre and spot of ground in the whole valley and on the foothills, was seeded for hay and grain, and we believe, with but very few exceptions, the farmers will all be richly rewarded. A vast amount of hay has already been cut, which, unlike the hay crops in many other portions of the State, is of excellent quality and will bring good prices. The grain crop will be one-third larger, and in most cases of a better quality than previous years.

A Dairy Project.

Messrs. Davidson & Cole, of Santa Clara county, have in view the establishment of a cheese and butter factory in Hollister, and if the prospect of milk production in this valley warrants the enterprise, the large store owned by J. M. Browne, at the south end of town, will be secured for the purpose. These gentlemen would require the constant daily delivery of milk from no less than 500 cows to enable them to pursue this industry successfully. The question is, what encouragement have the farmers of the valley to offer toward the consummation of this important commercial pursuit? A large outlay will be necessary to fit up the building with machinery, vats and presses, and, before any money is invested, Messrs. Davidson & Cole are wisely determined to prospect the chance for the success of the enterprise. To manufacture cheese and butter profitably, a fresh and constant milk supply must be assured. Many hands will be employed by the month.

A similar dairy is already established by Hon. J. McM. Shafter, upon the lands of the Drake's Bay Colony, in Marin County. Settlers can take their supply of milk to the dairy daily, and sell it, or receive in return butter or cheese.

SAN DIEGO COUNTY.

This, the most southern county in the State, contains an area of over 8,500,000 acres. Population, 13,177. The western part, along the coast, is very fertile, and contains the bulk of the population. Most of the eastern portion is dry and barren. Considerable attention is devoted to fruit-raising and bee-keeping. The climate of San Diego is perfect. Oranges, limes and all kinds of semi-tropical fruits are raised. The harbor of San Diego is one of the best on the Pacific Coast. Land under cultivation in 1876, 14,039 acres. In wheat, 6,225 acres, yielding 104,209 bushels; in barley, 2,609 acres, yielding 62,748 bushels; and in hay, 4,597 acres, yielding 5,613 tons. Population, 13,778.

"SAN DIEGO.—Never were our prospects so fair for very large crops of wheat as they have been this year; but the rust has appeared and spoiled our calculations. Two months ago we expected an average yield of wheat of thirty bushels to the acre, but the rust has destroyed fully one-half. Barley, too, promised unusually well, but a large amount has been knocked down, and cannot be cut; the yield, however, will be a considerable increase over that of former years. Lankershim, I learn, threshed ten bushels."—[Morning Call.

SAN FRANCISCO COUNTY.

City of San Francisco.

San Francisco contains 300,000 inhabitants, and is improving more rapidly in population, commerce, wealth and importance than any city in the United States. It is the metropolis of the State of California, the grand center of commerce, navigation, manufactures, arts, science and literature. No other city in the world is composed of so cosmopolitan a population, or can boast of such remarkable rapidity in development. It is one of the best governed cities in the United States. The police and fire departments are unexcelled. The hotels are as fine as any in the Union, and its grand Golden Gate Park is the only one in the United States having an ocean frontage.

San Francisco's Wealth.

Auditor Maynard has transmitted to the State Controller an official statement of the value of San Francisco real and personal property for the year 1878-79. The amounts, as compared with last year's assessments, are as follows:

	1878-79	1877-78
Number of acres of land assessed in acres	6,885 470-1000	6,909 367-1000
Total value of real estate	$139,885,425	$141,422,820
Total value of improvements on real estate	50,394,495	49,550,060
Value of personal property, exclusive of money	45,063,270	52,716,985
The amount of money	9,133,280	11,013,105
Total value all property	$244,476,470	$254,702,960

The total reduction, as compared with last year, is $10,226,490, of which the sum of $1,879.825 is in money, $7,653,715 in personal property, and $1,537,395 in real estate.

The only gain is in improvements, which show an increase in value of $844,435. The shrinkage in the value of property over last year is a loss of $173,250 in taxes, computing the amount to be collected at the rate of $1.69 on each $100 valuation.

SAN JOAQUIN COUNTY.

This is the principal county of the great southern valley, and is an exclusively agricultural district. Of the 896,000 acres comprised within its limits, three-fourths are capable of producing good grain crops. The San Joaquin River runs through the county, from north to south. A large quantity of tule land along the river and its branches is being reclaimed. The soil is a rich, sandy loam of considerable depth. Irrigation has been extensively carried on. Land cultivated in 1876, 238,600 acres. In wheat, 180,150 acres, yielding, 1,800,000 bushels; in barley, 36,180 acres, yielding 625,600 bushels; in rye, 2,870 acres, yielding 57,400 bushels; and in hay, 18,200 acres, yielding 20,000 tons. Population, 27,000.

"SAN JOAQUIN.—We estimate an increase of ten per cent. over the wheat crop of '75-6 from increased acreage, and a little better yield. The rust is confined to adobe soil, covering say one-fourth the area sown. In quality a good average. More barley than ever before. On Union Island some 7,000 acres inundated.

"A sample of wheat from Roberts' Island has been sent us. The land upon which it was grown was under water and covered by a dense growth of tules eighteen months ago. The first arrival, of 4,000 sacks, was sold yesterday at $1 70 per cental. The crop is estimated at 100,000 sacks. There are 60,000 acres, of which 4,700 are under cultivation. M. C. Fisher, and the California and Glasgow Land Companies are the proprietors. So thoroughly has the work of reclamation been performed that the levees withstood the floods of last winter, the severest likely to occur."—[S. F. Bulletin.

SAN LUIS OBISPO COUNTY.

This county contains over two million acres. It is bounded on the norh, by Monterey; east, by Kern; south, by Santa Barbara, and west, by the Pacific Ocean. It is about seventy-five miles long from north to south, and its breadth will average sixty miles.

The population of the county is 9,000.

The principal industry is stock-raising and dairy-farming, for which San Luis Obispo offers inducements and advantages second to none in the State. The abundance and variety of wild feed and the facilities for watering make this the banner grazing county of California. The valleys are very fertile, producing enormous crops of the cereals. Sixty bushels of corn to the acre is about a fair average on these moist valley lands. Vegetables of almost every variety are grown successfully the year round. The soil is a black loam, averaging six feet in depth. The climate is unsurpassed.

The lands of San Luis Obispo county are semi-agricultural and grazing, hence the productions are varied. The valleys are exceedingly rich, producing in many instances 100 bushels of barley to the acre, or sixty-five of wheat. The soil is generally a black loam, in places seven to eight feet in depth, resting upon a clay substratum. In the northern portion, the county is broken and the valleys narrow, but coming south they widen out.

The principal productions of this section are wheat, barley, oats, beans, potatoes and corn; all the fruits of the temperate zone; and in the valleys near the base of the Santa Lucia, the semi-tropical fruits find a congenial climate.

The temperature is nearly uniform, the difference or range being not over eleven degrees throughout the year. The average annual rainfall twenty-one inches. The rainy season generally commences about the fifteenth of November, and extends to about the first of May, with long intervals of balmy, spring-like weather. Irrigation is not required in any part of the county; abundant crops of corn are raised in the valleys, with but little cultivation.

Land cultivated, 1876, 60,000 acres. In wheat, 6,000, yielding 150,000 bushels; in barley, 30,000, yielding 900,000 bushels; in potatoes, 1,000 acres, yielding 4,000 tons, and in hay, 80,000 acres, yielding 160,000 tons.

" One-fifth of the wheat east of the range of mountains is twenty-five per cent. better than that of 1875-76. Four-fifths of the crop lying on the coast stands twenty-five per cent. better than that of the season before last, but is damaged by the rust fifty per cent. The barley crop is remarkably fine, and will yield from ten to twenty-five per cent. more than the crop of 1875-'76. Acreage flax large increase. Bean crop fifty per cent. larger than ever before." —[Morning Call.

Climate.

Monthly mean temperature of the atmosphere in San Luis Obispo, Cal. Taken by Dr. W. W. Hays:

	1874.	1875.
January	51.08	50.65
February	50.02	52 40
March	49.21	52.17
April	53.47	57.11
May	58.99	62.47
June	62.55	63.05
July	65.18	64.80
August	64.37	65.91
September	63.15	62.12
October	60.65	68.58
November	55 00	58.54
December	49.84	54.30
Mean of the year	56.96	59.04

SAN MATEO COUNTY.

Adjoins San Francisco county on the south. Noted for its excellent dairy farms, and the number of fine residences along the S. P. R. R. Crops are always certain in this county. Acres cultivated, 1876, 60,000: in wheat, 6,500 acres, yielding 130,000 bushels; in barley, 7,000 acres, yielding 210,000 bushels; in corn, 10,000 acres, yielding 300,000 bushels; in beans, 400 acres, yielding 6,000 bushels; in potatoes, 5,000 acres, yielding 50,000 tons; and in hay, 10,000 acres, yielding 9,000 tons. Butter, 7,000 pounds; cheese, 1,000,000 pounds. Population, 12,000.

In this county is located the beautiful tract of "Burlingame," belonging to Senator William Sharon, which will soon be placed on the market for sale in one, five, ten and twenty-acre tracts. It is only forty minutes from San Francisco by rail, and is well calculated for residence property for people of small means.

SANTA BARBARA COUNTY.

The resources of this county are chiefly agricultural. Formerly there were but few land-owners here, their ranches extending over scores of square miles; but now the farms are subdivided, homesteads are plentiful, and the development is rapid. Almond and olive trees do well in Santa Barbara county; 40,000 acres are cultivated. Population, 12,000.

"Wheat crop will be considerably larger than that of last year, although it will not come up to that of the year before last. Considerable damage has been caused on the sea-coast lands by rust, from excessive moisture, late rains, etc. Barley plenty, larger than last (dry) year, but badly injured for either hay or grain by the fogs and late rains. Much unfit to cut. Acreage in grain greatly increased, but expectation disappointed."—[S. F. Call.

In the northwestern part of the county is the famous colony of "Lompoc," located under the auspices of the California Immigrant Union of San Francisco, conducted on temperance principles. It now numbers over 350 families, which are doing well. Three schools, costing $10,000, are attended by about 400 children. Hon. E. H. Heacock, formerly County Judge of Santa Cruz county, is the President of the colony.

SANTA CLARA COUNTY.

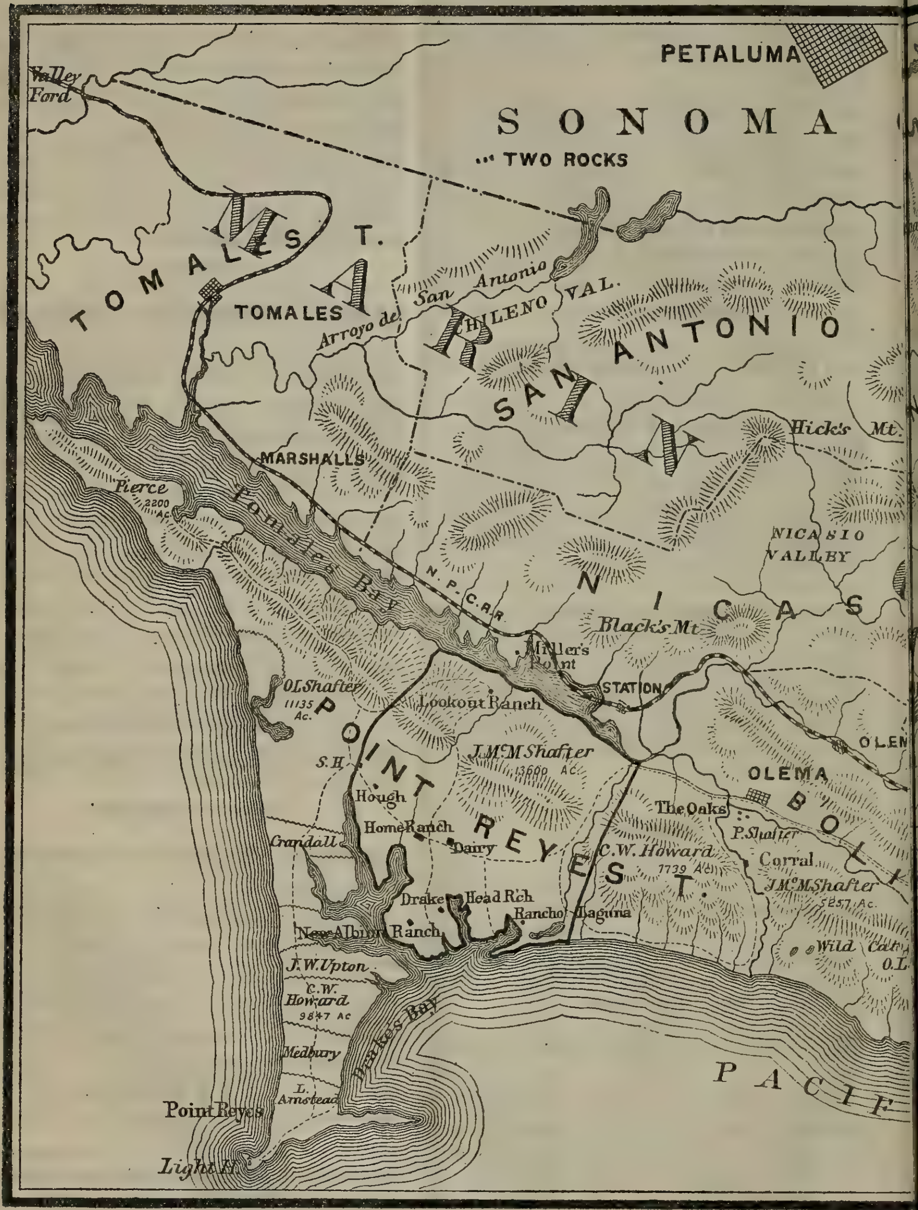
Santa Clara County lies immediately south of the Bay of San Francisco. It is about sixty miles long by about fifty wide, and contains a population of 45,000. It comprises one of the most beautiful valleys in California; rich in everything that goes to make a prosperous community. The soil is second to none in California, and the climate is unsurpassed. This is the county for pleasant, comfortable homes. To show the progress made, we give the latest Assessor's report:

Total value of personal property	$4,123,098
Total actual cash value of all descriptions of real estate	23,798,393
	$27,921,491

Land under cultivation 1876, 275,420 acres. In wheat, 155,343 acres, yielding 2,875,120 bushels; in barley, 25,310

MAP OF MARIN C

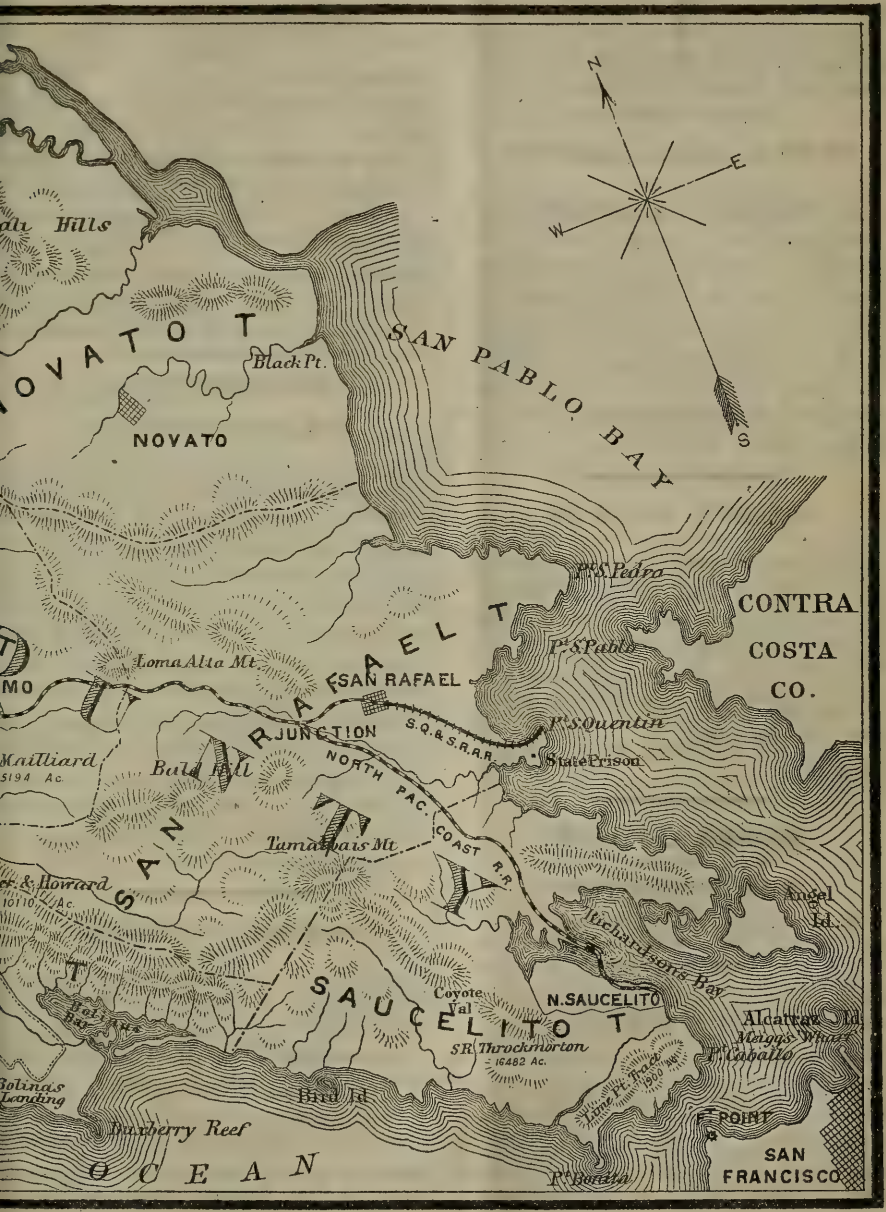
The black lines in Point Reyes Township, just north of Drak



Bacon & Co., Printers, 508 Clay St., S.F.

NTY, CALIFORNIA.

icate the portion of the Shafter Rancho now offered for sale.



acres, yielding 430,250 bushels; in potatoes, 3,000 acres, yielding 9,000 tons, and in hay, 31,900 acres, yielding 33,500 tons. The value of the fruit crop is $2,500,000.

"SANTA CLARA.—The wheat crop will be the largest ever produced in this county, and notwithstanding a shrinkage of about seven per cent, caused by rust, the yield will be about forty per cent greater than the crop of 1876. Barley is excellent, and will also be about forty per cent over the yield of 1876."—[S. F. Bulletin.

SANTA CRUZ COUNTY.

The county of Santa Cruz is more celebrated for its manufactures than for its agricultural products, though it contains some of the richest lands in the State. It comprises 320,000 acres, of which 40,000 acres are the richest bottom lands along the various streams, and 50,000 acres of agricultural land, which form terraced plateaus. The county is heavily timbered. In 1876, 20,380 acres were cultivated. In wheat, 7,200 acres, yielding 179,000 bushels; in barley, 4,250 acres, yielding 158,200 bushels; in oats, 2,580 acres, yielding 83,100 bushels; in corn, 1,300 acres, yielding 23,310 bushels; in hay, 2,755 acres, yielding 3,450 tons, and in sugar beets 1,150 acres, yielding 8,280 tons. The dairy yielded 112,135 pounds of butter, and 27,900 pounds of cheese. Population, 16,100.

SHASTA COUNTY.

Shasta county is watered by the Sacramento River, and is one of the best irrigated counties in the State. The cereals yield largely. Fruit is produced in abundance; and good tobacco has been grown. Large forests cover the northern and western portions of the county, which are very mountainous. Land under cultivation, 1876, 31,275 acres. In wheat, 8,000 acres, yielding 88,000 bushels; in barley, 7,000 acres, producing 102,000 bushels, and in hay, 15,600 acres, producing 7,800 tons. Area, 4,500 square miles. Population, 6,800.

The hay crop is very large this year, but grain has not produced an unusual yield.

SIERRA COUNTY.

Sierra Valley Hoppers.

"We spoke yesterday of the myriads of grasshoppers in the Sierra valley, and of the imminent danger the crops were in. Another gentleman tells us that there is a mile square in the center of the valley which is completely covered with the young insects, which have appetites like crosscut saws. He suggests that the farmers club together, and, by rolling over this tract with heavy rollers, kill at least the major portion of them, for should they all survive they will not gratefully spare the green acres around them. The crops never looked better, and the farmers have only this one thing to fear. One has no idea of the magnitude or destructibility of this plague. Flying in clouds so thick as to darken the sky for an hour at a time, they leave the country over which they pass as bleak as if a fire had swept it. Millions may be killed, but like the war with China there are ten to take the place of every one that falls. It is not profitable to raise grain for grasshoppers' use. We hope our Sierra valley friends will escape the impending danger."—[Reno Journal.

SISKIYOU COUNTY.

Land under cultivation	30,127 acres
Total valuation of property	$2,986,332
Population	8,000
Saw mills	18

This county contains 5,300,000 acres, of which 250,000 is suited to agriculture. About 1,000,000 acres valuable forests; about 500,000 acres covered by beautiful lakes.

The wheat crop bids fair to be ten per cent. in excess of that of year before last. Barley looks well, but is not a safe crop, owing to frosts in some parts of the county. There are also large crops of oats and timothy hay in Scott Valley; oats will average about fifty bushels to the acre, and timothy hay from one and one-half to four tons per acre.

Grain, fruit and vegetables are grown in large quantities, wheat averaging 25 bushels to the acre.

SOLANO COUNTY.

Solano county contains an area of about 512,000 acres. The soil is generally very fertile, especially the low lands lying along the Sacramento river, which produce enormous crops of wheat and other cereals. Deep-water vessels are loaded with grain at Vallejo, and the proximity of San Francisco guarantees the prompt sale of fruit, vegetables, live stock and other products raised. The climate of Solano is excellent. For situation, health and inducements to farmers, this county cannot be surpassed. Land cultivated, in 1876, 109,394 acres; in wheat, 93,575 acres, yielding 1,965,175 bushels; in barley, 15,819 acres, yielding 553,665 bushels; and in hay, 13,502 acres, yielding 19,515 tons. Population, 20,750.

"There is an increase of nearly one-half in the acreage of wheat, but the crop yield is estimated about one-seventh lighter than that of 1875-6. The shrinkage is attributed to too much rain and the ensuing cold weather, causing rust and cheat. There is a small increase in the acreage of barley, and this crop will probably come within five per cent. of the yield of 1875-6. The slight reduction is due to the causes which affected the wheat."—[S. F. Call.

SONOMA COUNTY.

Sonoma county is bounded on the north by Mendocino and Lake counties; on the east by Napa; south by Marin and San Pablo Bay; and west by the Pacific Ocean. It is sixty miles long, by about twenty-five in width. Its area is 1,550 square miles, or nearly 1,000,000 acres, with an estimated population of 32,000. The surface of Sonoma is pleasantly diversified. Several ranges of hills divide the county into a number of valleys of various sizes, all extremely fertile and well watered. Sonoma has abundant facilities for the support of twenty times her present population, and offers inducements to immigrants second to none in the State. Her splendid climate, rich soil, certainty of crops, and convenience to a good market, are not to be excelled by any county in California.

Land cultivated in 1876, 153,611. In wheat, 33,000 acres, yielding 600,000 bushels; in barley, 14,726 acres, yielding 26,000 bushels; in oats 13,660 acres, yielding 200,000 bushels; in corn, 2,800 acres, yielding 50,000 bushels; in potatoes, 3,730 acres, yielding 8,000 tons; and in hay, 60,000 acres, yielding 70,000 tons. Butter, 2,756,000 pounds. Cheese, 386,000 pounds.

"There is an increase in the acreage of both wheat and barley over that of 1875-6, but the heavy rains during last winter and in the early spring turned a great part to cheat, compelling the farmers to cut their crops for hay or lose nearly all. I venture to say that there are not fifty farmers in this county that raise an average wheat or barley crop for this section this season, although the rain has not affected the barley as bad as the wheat."—[S. F. Call.

"J. B. E. Young, of Healdsburg, made and marketed from one cow, this past summer, over three hundred pounds of butter. The animal was a Devon-Durham, five years old, and had her second calf. She was pastured on the hills and fed at milking time with bran and slops."—[Bulletin.

STANISLAUS COUNTY.

Contains more than 600,000 acres of arable land. Wheat is the great staple. This county stretches entirely across the great San Joaquin Valley, one of the most fertile in the world. Land can be very cheaply cultivated here, on account of the evenness of the surface, looseness of the soil, and the absence of trees and rocks. Railroads run to San Francisco, Sacramento, Stockton and Los Angeles. Land under cultivation, 1876, 600,000 acres. In wheat, 416,666 acres, yielding 5,000,000 bushels; in barley, 54,444 acres, yielding 800,000 bushels; in corn, 2,000 acres, yielding 30,000 bushels; and in hay, 14,000 acres, yielding 6,300 tons. Population, 10,500.

"STANISLAUS.—This county will certainly not lose her position at the head of the list of grain counties of California. The season has altogether been the most propitious we could have reasonably desired. Crop of good quality and yield much above an average."—[Call.

SUTTER COUNTY.

This is a flat county, with the exception of the northern part. Nearly all the western portion is subject to annual inundation, only needing reclamation to make it valuable. The soil is rich, and agriculture profitably carried on. Land under cultivation, 1876, 202,215 acres. In wheat, 91,266 acres, yielding 1,368,575 bushels; in barley, 25,000 acres, yielding 450,000 bushels; in corn, 1,871 acres, yielding 45,525 bushels; in buckwheat, 1,200 acres, yielding 36,300 bushels; and in hay, 14,925 acres, yielding 11,715 tons. Population, 6,335. Area, 576 square miles.

TEHAMA COUNTY.

Tehama depends as much on lumbering as on agriculture for its prosperity. Cereals grow profusely in the plains, fruit ripens in the foothills, cattle feed in the mountain valleys, and timber covers the peaks. There are 136,950 acres cultivated. In wheat, 72,114 acres, yielding 792,512 bushels; in barley, 15,554 acres, yielding 234,906 bushels; in oats, 1,250 acres, yielding 28,750 bushels; in peanuts, 100 acres, yielding 190,000 lbs.; and in hay, 43,510 acres, yielding 48,950 tons. Population, 7,000. Area, 2,800 square miles.

"TEHAMA.—There is an increase of about twenty-five per cent. in the acreage of wheat, but the crop has suffered somewhat from too much rain and rust. Barley promises a fair average yield."—[Call.

TRINITY COUNTY.

Total population	3,400
Total valuation of property	$1,810,367
Acres of land enclosed	23,223
Acres of land cultivated	9,436
Saw mills	10

Chief industrial pursuit, mining for gold in placer diggings.

TULARE COUNTY.

Tulare county is situated in the great San Joaquin Valley, about 200 miles south of San Francisco. Good land is cheap and abundant. Water for irrigation is plentiful. Almost anything that grows can be produced. Crops are heavy, market facilities good, and the population increasing rapidly. This is a *new country*, having been farmed to any extent but few years. 74,806 acres were cultivated in 1876. In wheat, 26,460 acres, yielding 423,360 bushels; in barley, 35,780 acres, yielding 644,040 bushels; in corn, 1,300 acres, yielding 29,900 bushels; in potatoes, 1,100 acres, yielding 3,300 tons; in hay, 1,700 acres, yielding 2,550 tons; wool sheared, 2,210,000 pounds; sheep, 434,975; population, 15,000.

"TULARE.—One correspondent estimates the wheat and barley yield about equal to those of 1875-6. The wheat yield, he thinks, is reduced about one-sixth from what it promised, by rust. Another puts the condition of both at one-third greater than the yield of 1875-6, estimating the reduction in wheat from rust at less than one-tenth. Acreage about double that of '75-6. Large areas of new lands opened up."—[S. F. Call.

TUOLUMNE COUNTY.

Total population	12,500
Total valuation of property	$7,626,640
Acres enclosed	70,930
Acres cultivated	10,984
Value of fruit crop	$133,817
Saw mills	6
Feet sawed	5,100,000

"The farmers are now in the midst of the haying season. Abundance is visible everywhere. The weather is pleasantly cool for fatiguing labor. The tramp is now supplied with labor, and good remuneration for the same. What a grand era might be inaugurated if farmers could and would hire men the year round. I believe that it would be better for all concerned. They pay as much for a few months' work as would hire for the whole year. By hiring through the year a mixed farming would take the place of wheat-growing. I cannot understand why the system works so well in all other parts of the civilized world, while California should be an exception."—[Rural Press, July, 1878.

VENTURA COUNTY.

Total population	7,000
Total valuation of property	$3,394,535
Total acres inclosed	10,000
Total acres cultivated	75,000

In this county the condition of the crops is favorable, as in the splendid spring of 1876, and very nearly double the breadth of land then sown is now sown to barley. The early sown barley is all headed out, and in some localities is pretty badly infested with weeds. What little is seriously affected in this way will be sold standing to the owners of hogs. The spring-grown grain never looked so well. The weeds having been plowed down after sprouting, the grain is perfectly clean, and will give a splendid yield. Nothing but late rains, which will beat down rank stalks, will now prevent this. In the higher valleys, about five times the amount of wheat has been sown. The dense growth is preventing the evaporation of extra moistures, which may cause some rust in this section. A good deal of flax and canary have been sown, the former of which is growing very tall, and will yield a good fiber this year as well as seed. Generally the straw here is too short to be merchantable. About all the ground not now in grain will be planted to corn during this and next month. Good corn land rents readily at $4 per acre. Honey in considerable quantities is being taken from the hives. Among the many large apiaries of the county, that of Messrs. Atwood & Kenney, of the Sespe, stands in the front rank. They have 300 stands of bees, half being of the Italian species. During a run of five hours, they extracted 1,000 pounds of honey from the comb. So far, the firm have shipped 3,000 pounds, and now have 4,000 pounds more cased, ready for shipment.

Small Seed Farms in Ventura.

Our small seed farmers have done well this year. William Evans is now threshing his crop of canary seed, which is giving from 1,400 to 1,600 pounds of clean seed to the acre. W. D. F. Richards has 100 acres of equally heavy seed, and Bruce Evans has seventy acres, which will be of equal value. The corn crop in all that section is finer than ever before.—[Ventura Free Press, August 17th.

YOLO COUNTY.

This is almost exclusively an agricultural county, situated in the Sacramento Valley. The products are wheat, barley, oats and other grains, of which immense crops are raised. The soil is equal to any in California, and produces a superior quality of grapes and other fruit. The wool clip is large. Area, 1,150 square miles. Excellent market and transportation facilities; 138,995 acres were cultivated in 1876. In wheat, 122,695 acres, yielding 2,322,269 bushels; in barley, 18,559 acres, yielding 40,062 bushels; in hay, 16,122 acres, yielding 27,206 tons; 519 acres of grape vines yielded 138,150 gallons of wine and 3,250 gallons of brandy. Population, 11,500.

"Although there is considerable rust in some portions of this county, others have been comparatively free; and, although much complaint is heard among the farmers, I regard the wheat crop as very nearly if not quite equal to that of 1875-6. The barley crop is first-rate; and if there should be any shrinkage in the yield, it will be from high water, as the rust or blight has not injured it. I think this crop will be fully up to that of the year before last. Another correspondent of high authority, however, thinks the wheat crop will be fully one-third less than that of 1875-6. and a third writer from the same section, well posted, substantiates this opinion. Flooding and rust, with cheat, are assigned as the cause for the falling off. Both agree, however, that the barley crop is as large as that of the season before last."—[S. F. Call.

YUBA COUNTY.

It is situated in the Sacramento Valley. Vast quantities of grain are raised. There is plenty of good, cheap land in this county. That along the Sacramento River is wonderfully productive.

The California and Oregon R. R. runs through the southwestern portion of the county. Land cultivated in 1876, 52,000 acres. In wheat, 15,463 acres, yielding 224,525 bushels; in barley, 7,976 acres, yielding 156,400 bushels, and 14,640 acres in hay, yielding 15,764 tons. Population, 10,000. Area, 600 square miles.

Oakland City.

Oakland is a beautiful city of 35,000 inhabitants, is the county seat of Alameda county, and is rapidly becoming to San Francisco what Brooklyn is to New York. Dredging is constantly in progress, with the view of allowing deep-water vessels to load at the wharves, and a bill has been introduced into Congress to make Oakland a port of entry. Many of the citizens of San Francisco have their private residences here. It is reached from the city by ferries, which run every half hour; fare, fifteen cents each way; monthly commutation tickets, $3; distance, 7 miles.

What the State Needs.

The great want of California is a population for the country—for her broad, uncultivated acres that are lying in their virgin richness awaiting the hand of the laborer. The tendency of men to congregate in cities is perhaps nowhere more strongly marked than in California. With a State population of not over one million, less than one-fourth of her people as producers, how are growth and prosperity and plenty to come to the remaining three-fourths? California wants bone and sinew, and nerve, and industry. She does not need the cultivation of the fine arts so much as she needs good, honest farming, dairying, gardening, fruit-growing, and industries which will win from the soil its wealth, and make her population self-supporting. There is room within her limits for millions such as these, and here their diligence will be rewarded with the wealth they seek.—[Nevada Gazette.

A Small Fruit Orchard on Every Farm.

There are still thousands of farms in this State that have no fruit orchards on them. The owners of these farms probably all intend, as soon as they can make it convenient, to plant out orchards, to at least supply fruit for family use. Many of them, however, have held to this intention for years, and yet the convenient time is as far off as when they first came into possession of their farms. Now, to all who have no orchards bearing or growing, we would say: You don't realize what you lose each year by not putting your good intentions into execution. Life is but short at the most, and all the time we live in anticipation of the necessaries instead of in the actual enjoyment of them, is so much time thrown away, not only to ourselves, but to each one of our family who is dependent upon our actions. In this warm climate especially, fruit is one of the actual necessaries of every individual. Fruit is much cheaper and more effective in preserving health than doctor's visits and prescriptions. When once planted, fruit trees seem to come into bearing in this State before we can hardly realize it, and with comparatively but little care and attention, bear more than we anticipated. Fruit orchards about the farm-house, however humble, give it an air of comfort and enjoyment. They help to pin the attachment to the farm for both old and young, male and female. They break the winds, afford shade, and, above all, bear to us the cheapest and best food the farm produces. Now, we started in to tell all our readers who have farms how to work to secure, during the coming winter, the beginning of a fruit orchard; how to carry the delayed but good intentions into effect. In the first place, make up your mind that a small orchard is all you want for family use. A few of the best varieties of eating and cooking apples, a few of the best kinds of pears, a few peaches, plums, apricots, nectarines, cherries, and an orange tree, and perhaps a lemon tree would make up a good family orchard. In selecting these trees we would only have one tree of each variety, and so average them as to time of ripening that there should be no time in the year that the family would not have fresh fruit of some kind.

Colonization Schemes.

The laying off of lands into small farms and selling them out to settlers has become quite popular of late years in the southern portion of the State, and by these means high prices have been received for lands that but few years ago were deemed almost valueless. The success of these schemes has been uniformly owing to irrigating facilities which land-owners have provided. Land in any portion of California can be made valuable and productive by applying water and manure. There is not an acre of land in the whole San Joaquin Valley which could not be made to produce forty bushels of wheat to the acre by bestowing upon it the same amount of manures as the Southern planter bestows every year upon his cotton and corn fields, and then irrigating the land. Our farmers have yet to learn the simple rule of three in their farming operations. In older countries, where the soil has been remade over and over again, the farmer knows that when he applies fertilizers he will reap accordingly. In our State, both water and manure are needed. However, the water contains in itself a great deal of fertilizing substance, but probably not sufficient. If the farmers on the plains do not reclaim their lands, they will ere long be compelled to abandon them, or sell them for a song; and capital will not be long wanting to bring water and fertilize them, and when that is done there will be plenty of anxious purchasers. There is a large profit in these colony lands, but they are also of great benefit to the State. The lands are put in such a condition that they will support a family, and it matters not whether the farmer pays the cost of constructing water canals before or after purchasing the land.—[Chronicle.

Impressions of Farm Life.

The following is an extract from an article in the San Francisco *Bulletin* under the above head. After reviewing the opinions of an English traveler on farm life in the Eastern States, the writer proceeds:

"There is no State in the Union where farm life can be made more attractive than here. The climate admits of out-of-door work every month in the year. It admits also the culture of a range of semi-tropical shade and fruit trees, such as cannot be grown in any cold country. There are also more sunny days and more weather certainties in California than in any of the States east of the Mississippi.

"Farm life will become more and more attractive in California, because to a large extent it will be redeemed from the coarser aspects of a rough pioneer condition. The homestead will take the place of the "ranch." The few rural homes which have already been made as attractive here as in any land under the sun, are an earnest of what is to be accomplished in this respect in the next twenty years."

Value of the Eucalyptus.

We learn from the "Meteorological Magazine" that at the Easter reunion at the Sorbonne some information was given by Dr. de Pietra Santra, a delegate from the Climatological Society of Algiers, as to the results of an investigation made in Algeria to ascertain the importance and value of the *Eucalyptus globulus* in relation to public health. It appears that reports were received from fifty localities where the aggregate number of blue gum trees is nearly 1,000,000, and from these reports the following conclusions have been drawn: First. It is incontestably proved that the eucalyptus possesses sanitary influence. Second. Wherever it has been cultivated, intermittent fever has considerably decreased, both in intensity and in frequency. Third. Marshy and uncultivated lands have been rendered healthy and quite transformed. Similar results have been obtained in Corsica, where it is computed that in the present year there will be upwards of 600,000 plants of eucalyptus in full growth.

The Eucalyptus.

Strangers visiting Oakland and Alameda notice graceful trees standing much higher than any of the ancient oaks These are the famous Eucalypti, which, although planted only ten or twelve years ago, have shot up into young giants. Some of these are seventy feet in height, measuring seven feet eight inches to seven feet eleven inches in circumference, three feet above the ground. It became necessary to remove one, in Alameda, not long ago, to make room for improvements. The tree, only ten years old, measured twenty-six inches in diameter at the collar, with a long, tapering trunk, fit for a saw-mill, at least twenty feet in length. Some of the timber was shown to a carpenter, who, after a deliberate examination, pronounced it hickory, having all the toughness and, as the carpenter expressed it, "cheesey cut" of the best ash or white oak. There is nothing, unless it is a mortgage on one's homestead, that grows as fast as a Eucalyptus, and it is not improbable that a well-planted grove of them would overtake and capture the mortgagor. An amount of timber equalling one cord of wood being planted, the growth will be: for the first year, eighteen cords; the second, fifty-four; the third, 125; the fourth, 250; the fifth, 400, and so on. No other timber known grows with this rapidity. Flourishing in all kinds of soils, and equal in quality to the oak or hickory, it bids fair to be of the greatest value to California, which has much need of a timber suitable for wagons and machinery.

Butter-Making Counties.

The Sacramento "Bee" contains the following concerning the production of butter in California: "The principal butter-making counties of the State at present are Marin and Humboldt. Marin has for years been noted for her dairy land; but Humboldt is comparatively new in the business. For the past two years thirty cents per pound has been the average for the entire shipment. From July, 1875, to July, 1876, her exports of this article amounted to 112,672 pounds, valued at $33,791.60; from July, 1876, to July, 1877, 115,015 pounds, valued at $34,507.20; making for the two years money received for butter exported, $68,298,80. Marin does a larger business; but we have not the figures at hand to compare them. The time seems to be not far distant when California will not only raise enough butter to supply herself and neighbors, but also to ship East. And why should she not? She has every facility at her hand; as good a grazing country as there is in the world, and plenty of it; a climate not severe on cattle; and the cows yield copiously of milk. And for that matter there is no reason why our State should not produce everything she needs. When the lands become more thickly settled, and the people as a rule leave wild speculation for safe investments, California will become a great manufacturing, trading and producing country. It may not be for years, but it will be in time."

A Permanent Home.

To have a home which a man has himself reared or purchased—a home which he has improved or beautified—a home, indeed, which, with honest pride and natural love, he calls his own—is an additional security for any man's virtue. Such a home he leaves with regret; to it he gladly returns. There he finds innocent and satisfying pleasure. There his wife and little children are happy and safe, and there his best affections center and grow. To such a pair, as time advances, the abode of their early and middle life, whence perhaps they have all departed, becomes constantly more dear, for it is now a scene of pleasant memories—the undisturbed declining years. And say, what lapse of time, what varied experience of prosperity or sorrow, can efface the good impression made by such a home on the tender heart of childhood?

Small Farms Pay.

The Sacramento "Bee" says: We are constantly told that small farms will not pay in California. But we know of a farmer within twelve miles of Sacramento who owns 160 acres, and who on that land supports a family of seven, and puts in bank every year $1,000 as clear profit. He raises chickens, turkeys and vegetables, and sows much of his land in wheat and buckwheat, and oats for poultry feed. The chickens are cared for by the young children, and a dog herds the turkeys. This man has a good wagon and several horses, and lives as comfortably as any rancher who owns 40,000 acres. Besides, he is able to care for the needy, and does it.

"A Little Land Well Tilled."

There is no better preventive of or remedy for ordinary human troubles than the one indicated by this quoted line. A farmer who is a good manager—who does not let his work drive him—can, and does, enjoy more, both physically and mentally, than any other class of men. The horrors of fear, care, envy, ambition, and temptation scarcely come near him. He is surrounded by plants, trees, fields, birds, animals, and rocks; the great book of Nature opens page after page, more than his whole life, time will suffice for examining, and enough to give each day a fresh interest and a fresh wrinkle. The farmer who loves to cultivate his mind as well as his fields and his foals, becomes the most practically learned of men.

California Society.

It has been said that no community will be so enterprising, prosperous and progressive, as one made up of representatives from many nations. National characteristics are as well marked as family traits. The peculiarities of climate, topography, commercial relations, religion, politics and everything pertaining to a people as a distinct nation, all have an influence in forming the individual characteristics by which we classify people coming from different localities; and every class of people coming to this country brings its fixed peculiarities, and these peculiarities contribute to the formation of a new society here. In the formation of California society these influences have been especially noticeable. People from every part of our own country, as well as from Europe, have come together here upon forms of equality. There has been no time yet for the building up of castes. In the struggle for a new existence here, home ties and influences are soon forgotten. We modify our habits of thought by contact with each other; we blend social customs, and a few years finds us with all the distinctive features of a new society. For the present there may be an extreme liberalism in politics, a lax morality and a want of social refinement, but it is not presumptuous to say that California possesses all the elements necessary for the rapid growth of a population that shall not be excelled anywhere for intelligence, prosperity and social refinement.

The Immigrant Union.

"In a letter from a visitor to the "Lompoc Colony," in Santa Barbara, to the Philadelphia "Press," the writer remarks: "I refer to Lompoc. Less than two years and a half ago it was nothing but an immense sheep-walk, with not a permanent resident upon it. To-day it has 300 families, with from 1,000 to 1,200 people. Our school census for last June was over 300 children between the ages of five and seventeen, and many families have come in since that. The literary and musical talent that is found among this hastily-gathered population is surprising. Concerts and entertainments are easily gotten up that would do credit to many an Eastern city. Socially, religiously, and morally it is a success, as is shown by its churches, schools, societies, temperance, Odd Fellows, and other organizations. The great attractions are its rich soil, splendid dairying lands, climate free from all bilious and fever tendencies, and the determination to exclude the sale and manufacture of all intoxicating liquors. We publish an excellent, wide-awake paper, copies of which I will send to any one who desires to know more about us."

The colony mentioned was located under the auspices of the California Immigrant Union, and which is now organizing colonies of the same sort—one near Eagle Lake in Lassen County, on a tract of 100,000 acres, where land sells at ten dollars an acre, payable in installments running through five years; one at Cucamonga, and one at Colton, San Bernardino County, twenty-acre farms at twenty-five dollars per acre on the installment plan, payments running through six years. It is also organizing one upon Shafter's Rancho, at Drake's Bay, Marin County, thirty-five miles from San Francisco. The Immigrant Union, in the subdivision and settlement of those great tracts of land, is doing the State of California a great deal of good, besides placing lands to new comers in small tracts and at low prices. We heartily endorse its action."—[Vallejo Chronicle.

What Artesian Wells Can Accomplish for a Barren Country.

Editor Morning Call: You do a public good in agitating the question of obtaining a supply of pure water by artesian wells. I think where the grade is so good as in San Francisco, it is a standing shame that your sewers are not kept washed clean by constant streams of artesian water, it being an established fact that it is abundantly obtained there.

Permit me to tell you what artesian water has done for this part of the country. Three years ago Judge Nye and C. E. Palmer, of Oakland, owned a tract of land twenty-six miles southeast of Los Angeles, which they had bought as an investment, and never yet have seen it. At that time a gentleman—an almost hopeless invalid—coming to the State for the sake of the climate, believing artesian water could be obtained, gave Mr. Palmer double what he paid for his land, and Judge Nye sold at the same rate. Then there was scarcely a house and not a shrub for about three miles around. Water was bored for, and flowing wells struck. Four crops of vegetables were obtained the first year on the same land, and now it is becoming an Eden. There are in that neighborhood about one hundred wells, sending fountains into the air unless capped, and land has quadrupled in value. S. L. King has a well 168 feet deep, which throws 100 miner's inches of water furiously enough to irrigate a mile square, and on a still night its roar might be heard for a mile when permitted to flow; and it is a valuable water-power for machinery, which would not interfere with irrigating.

J. D. Chaffee told me that he had raised 125 bushels of shelled corn to the acre on five acres, a total of 625 bushels; and as he had come from the Elgin dairy district in Illinois, and could appreciate the money to be made from milk after a trial of two years, was erecting a cheese factory. The alfalfa, last year, which was the dryest year ever known, yielded fifteen tons of cured hay to the acre during the year, and with plenty of water from the flowing wells hay is cut every month. In thirty-five months from the time the seed of the gum tree was planted, trees were cut forty feet in height, and stove wood is raised from seed in one year. Several vessels were loaded with the corn raised here and in the surrounding country last year for Mexico.

A neat village of entirely temperance folks has been founded, with schools, a M. E. Church, post-office, and all the conveniences of a cultured community, with oranges, lemons, limes, figs, plums, apricots, peaches, etc., now hanging from the limbs of such trees in their orchards; and all this done in the short space of three years, by the aid of artesian water, which made the dry year to be the most prosperous.

The farms here range in size from two acres up to eighty, and I believe with five acres an industrious man of good judgment may support a family and save a little. Honey, firewood, June butter the year round; fresh vegetables, constant crops, pure, soft and cool water, and almost every known thing may be produced here, and to attest these facts is a community of about one thousand people, equalling in society and a high moral standard the best that can be found in New England, and to me it is evident that it was accomplished by intelligently, yet simply, seeking artesian water.

The village store owns 100 egg boxes, holding thirty dozen each, kept in use in shipping eggs to San Francisco. Only last year this store was started, in the midst of the dry season, and instead of languishing, sold $33,000 worth of goods. How I wish the shiftless, homeless, unemployed could see the independence, the comfort, the delight of a little home of five acres of land, with its fruit, fowls, flowers and freedom from carking care. Why, any one may energetically sell peanuts, if nothing better offers, and get means to buy such a piece of land, and once on it he has a base of operation, something to add to—in the morning a vine or a tree, from which in eighteen months he may eat fruit—increasing his wealth and lessening his expense until he is independent of want.

Mr. Editor, artesian water has done so much for Garden Grove, Los Angeles County, that I pray you to agitate the question and scatter the knowledge for the public good.

GARDEN GROVE, Los Angeles County, July 24th.

Land Division.

" Mr. Shafter, who promised to divide up his large land tract into small farms, is making his word good; a fact which is hailed with delight in the region of country—the northern part of Marin County—where the tract is located. The little town of Olema will now receive an impulse of prosperity, and many avenues of industry be opened up in the vicinity besides that of farming. California will not take her proper position until her landed proprietors follow the example set by Mr. Shafter. Immigrants in search of homesteads will of course direct their footsteps where lands can be obtained in small quantities, on fair terms, and at reasonable prices. This is a problem in political economy easily understood, and it is a matter of surprise that the large land-owners cannot see that to dispose of one portion of their estate would be to greatly enhance the value of the remainder. The holding of these lands as an unimproved domain is at variance with the spirit of true progress."—[Morning Call.

SOMETHING

ABOUT

MARIN COUNTY.

Extracts from Work of Capt. George W. Gift.

MARIN COUNTY.

This county gets its name from an Indian chief of some celebrity during the first years of Spanish occupation. Marin seems to have been a leader amongst the Indians. He fixed his headquarters, or rather place of concealment and stronghold, on one of the small islands in San Francisco Bay, east of San Rafael, which is yet known as Marin Island. From this place he sallied at low tide to commit depredations. After the defeat of Quintin, Marin made submission, and gave no further trouble. The following schedule of the early grants of lands made to Californians will give an idea of the sparseness of the population, and the small value set upon lands by the government forty years ago:

Name.	*Grantee.*	*No. Acres.*
Baulinas	Gregorio Briones	8,917
Blucher (part)	Juan Vioget	13,580
Buacocha	Maria T. Peralta	21,120
Canada de Herrera	Domingo Sais	6,658
Corte Madera de Novato	Juan Martin	4,460
Corte Madera del Presidio	Juan Reed	8,879
Laguna de San Antonio (part)	B. Bojorques	15,835
Nicasio	P. de la Guera, J. Cooper	56,621
Novato	Fernando Feliz	8,870
Olompali	Camilio Ynitia	8,877
Punta de los Reyes	Berry & Snook	8,878
Punta de los Reyes Sobrante	A. M. Osio	48,189
Punta de Quintin	Juan B. R. Cooper	8,877
San Geronimo	Rafael Cacho	8,701
San Jose	Ygnacio Pacheco	6,659
San Pedro	Timothy Murphy	21,679
Saucelito	Wm. A. Richardson	19,571
Soulajulle	Ramon Mesa	13,338
Tomales y Baulinas	Rafael Garcia	23,050

What it will Cost to Settle.

For the information and guidance of those of moderate means, who wish to know what it will cost to establish themselves here, we append the present market prices to the following articles:

Mexican unbroken horses will cost each	$25
Good American horses will cost each	50 to 100
Good milch cows will cost each	30 to 50
Single plows	20 to 30
Gang plows, 4 plows to each gang	60 to 65
Harness, per set	20
Wagons	90 to 250
Hogs	8 to 12
Sheep	2 50 to 3
Grape cuttings, per 1,000	10
Blue Gum trees, per 100	5
Mulberry-trees for silk, per 100	6
Apple-trees, per 100	12
Pear-trees, per 100	25
Peach-trees, per 100	12
Plum-trees, per 100	25
Cherry-trees, per 100	25
Nectarine-trees, per 100	25
Persimmon-trees, per 100	35
Pomegranate-trees, per 100	35
Orange-trees, per 100	60
Lemon-trees, per 100	60
Lime-trees, per 100	60
Fig-trees, per 100	35
Olive-trees	30
Almond-trees, per 100	20
English Walnut-trees, per 100	15

THOUGH the winter has been rather severe in California, yet geraniums, fuchsias, and other tender plants have not been killed at San Rafael. Oranges and Lemons show no sign of damage.

Boundaries and Aspect.

Marin County is situated on the north side of the "Golden Gate," and consequently is bounded south and west by the Pacific Ocean, east by the bays of San Francisco and San Pablo, and north by the County of Sonoma. It has an irregular shape and a long coast line, and contains 330,000 acres of land within its boundaries, a small portion of which is worthless salt marsh. The surface of the country is mostly broken and hilly, there being but a small proportion of level valley land. A good deal of the county is composed of high and sharp rugged hills, which in several instances attain elevations sufficient to entitle them to be denominated mountains. Notwithstanding its hilly nature, the land is very valuable. The prevailing winds of summer come from the sea, and pour upon the hills and valleys in the western and southern parts of the county a constant stream of moisture which keeps the grass green long after it has withered and died in the interior parts of the State. As a consequence, this section of green grass is sought after by dairymen who would keep up their supply of fresh rich butter. Hence at an early day Marin County was occupied by the most skillful dairymen of the State, who now occupy almost its entire area; grazing its high hills and sowing grain for hay in its small rich valleys. The western extremity of the county, bordering the Ocean and Tomales bay, though a rolling country, is one of those extraordinarily rich spots found nowhere but in California. The soil is as black as tar, and has a depth of many feet; and getting the first draught of the fogs borne in from sea, it is moist enough to mature those fabulous potato crops you have heard of as growing in California; and here is one of the most prosperous communities in the State.

The Dairy Interest.

But the dairymen invade this rich country as the land becomes tired of constant cropping in potatoes and grain, and pasture their herds upon its hills. Not long since the "Sonoma Democrat" remarked that if you wished to find men entirely out of debt, thoroughly independent, and who always have money in their pockets, you must go to the coast and see the dairymen. In conversation with one of the leading dairymen of the coast not long since, he assured us that his profits per cow were from fifty to sixty dollars a year, and that he kept one cow to six acres of land. [This statement needs explanation and qualification. Our informant lives in the center of the best dairy region, where there is moisture to keep the grass growing and in heart until late in the summer; hence his land will carry a cow to six acres. Coming to the east the grass fades earlier in proportion to the deficiency of moisture in the atmosphere, until, when we get in the neighborhood of San Rafael, one cow is allotted to ten or twelve acres.] We have in the county several very large land-holders who have their lands fenced off into farms of convenient size, say from 500 to 1,000 acres each, which are improved with dwellings, dairy-houses and barns, and stocked with the proper number of cattle. These farms are rented to tenants at the rate of from $25 to $27 per cow per annum, which includes the use of from six to ten acres of land per cow, and houses and improvements, but does not include team, nor in all cases dairy fixtures.

Dairymen calculate upon making enough from their pork to pay all expenses except rent; hence in the cases where land is rented landlord and tenant about divide the proceeds from butter; the tenant having the advantage, probably. As elsewhere, the prices of butter vary with the seasons, but we think we are justified in saying that our dairymen get better prices than those of any other part of the world. All through the season since the beginning of fall fresh butter has been above fifty cents a pound, and pickled has been in the neighborhood of forty cents. The supply of pickled was exhausted in the middle of January, and consumers were compelled to take high-priced fresh butter or none. It must be understood, in order to fully comprehend the business, that our spring begins in November and December; that is to say, the grass then makes a start, and in average seasons is always sufficient during the remainder of the winter to furnish the cows with a green bite sufficient to flavor and color the butter, and promote the digestion of other food. In too many cases we fear that the cows get but little else beside what they find on the hills. Keep in mind also that whilst grass is growing that the weather is mild and open, the cows requiring to be sheltered only during the prevalence of heavy storms; and that when under simple shelter and out of the wet they are thoroughly comfortable. Consult the tables of temperature. To furnish food for the team and dairy stock during the winter storms, a small portion of land is seeded to grain each year, oats, or barley, (some farmers prefer one and some the other,) which is cut with the mower before maturity, and makes hay in itself nearly equal to long forage and grain. The long dry season and entire immunity from rain makes the handling of a heavy hay crop a comparatively easy matter.

We have little hesitancy in saying that in no country in the world can better crops of beets be produced than in our small rich valleys. We do not exaggerate when we say that the average of our crops are equal to the great "show" roots sent to fairs and exhibitions in the East and Europe. This information is given for the benefit of dairy experts elsewhere. We would say further for their benefit, that hay has ruled here during the past fall and winter ('74-'75) at from ten to thirteen dollars per ton; and the average price of bran has been about sixteen dollars per ton, and other ground stuff in proportion. Barley is our standard horse feed, which has been worth this season from one and a quarter to one and a half cents per pound. We sell everything by weight, and nothing by measure.

Something special should be said in regard to the pasturage. We have none of the cultivated grasses common in the East; such as red and white clovers, timothy, herds-grass, and the like. In room of these we have native grasses, which are better adapted to our purposes. We have no precise name for them, other than the general term of "grass" or "bunch-grass." Our native grasses spring up at the beginning of the rains in the fall, and continue to grow on to some extent through the entire winter. If the weather is open, as sometimes occurs, we have ample pasturage for stock, with but little use for cured food; but if the winter is hard the grass is more backward, and we have to feed more. Understand, however, that we have in all seasons sufficient grass to flavor and color butter, and if the land is not overstocked, enough to support the animals.* Grazing land is never plowed. Farms, both grain and dairy, vary in prices in accordance with the quality of the lands composing them and their proximity or remoteness from shipping facilities. Farms in the Tomales grain and potato country are rated at from $30 to $50 per acre; farms which have produced from 80 to 100 bushels of barley to the acre. We give some recent transactions as the best guide. One sale of 375½ acres sold for $13,506; another of 111½ acres, for $5,000; and a third of 142 acres, at $4,700. Dairy farms rate from $20 to $30 per acre, with improvements. As we have a "no-fence law," every man is compelled to fence in his own stock. Fencing stuff is comparatively cheap and accessible, and the material used (red wood) is as indestructible as the red cedar of the East. Dairy cattle are not as high as one would suppose from the advantages the business offers. Good cows rate at from $25 to $35 each. Good half-breed horses, hardy and serviceable, are worth from $60 to $100.

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* In our abundance of caution we may mislead Eastern people by speaking of "hard" and "open" winters. We speak in a California sense entirely; as no weather is

We close this topic with a quotation from the Sacramento "Record," which is, in the main, correct:

> There is probably no better dairy country in the world than Sonoma and Marin counties in this State. We have heretofore shown that by the census reports the average product of butter and cheese to the cow there is much greater than the average of the best dairy counties in New York, Ohio, or any other State We at present only wish to call attention to a fact which of itself is sufficient reason for the advantages those counties possess in this respect. The fact is, that for the past month the pasturage in those counties has been so good that cattle not only have not needed hay to keep them in condition, but have yielded sufficient milk to make on an average a pound of butter a day to each cow. What will our dairymen of old Herkimer, New York, think of this? While the dairy cows in New York, Ohio and all the States east of the Rocky Mountains are being housed to keep them warm, and fed with hay and cornmeal to keep them in condition, those of Sonoma and Marin are grazing in clover and native grasses up to their eyes, and are fat sleek, and almost uncomfortable with their well-filled milk-bags. Owing to the peculiarly mild and moist climate of those counties, the pastures afford constant fresh and luxuriant grass from January till September and October. In these latter months there is generally a little cessation of the growth of feed, on account of the change in the season, but all the balance of the year, unless overstocked, the pastures are like those of May and June in the Atlantic States. This early winter feed gives our dairymen a great advantage, for then they not only have the advantage of a good home market in the California towns and cities for their nice, fresh, and yellow butter, but the Eastern cities are glad to buy it at fancy figures. Thus, while the Eastern dairymen are expending time and money on their cows, the California dairymen are reaping their most profitable harvest from theirs.

Means of Transportation.

Until very recently the fine region of which we have been writing has been entirely without rapid and cheap public transportation. Heretofore many of our farmers and dairymen have been compelled to transport their products for some distance to market or water communication by their own wagons, which, although our system of county roads is most admirable, was tedious and expensive, and operated as a great drawback to our prosperity. In January, 1875, the North Pacific Coast Railroad (narrow-gauge) was opened through the county, and extends from the south-east to the north-west corner, and penetrates a region heretofore almost inaccessible. From Bolinas, on the south coast of the county, a steamer, owned by the people in that neighborhood, plies regularly to San Francisco, carrying passengers, dairy produce, and firewood, (which latter is an important interest in that neighborhood) at very low rates. From San Rafael a railroad extends to Point San Quentin, a distance of three miles, where it connects with a steamer which plies between that place and San Francisco several times during the day. In addition to this, the North Pacific Coast Railroad, above referred to, has a branch extending from its main line to San Rafael, to offer additional facilities to passengers. From Saucelito, the south-eastern terminus of the new railroad, a regular ferry to San Francisco is maintained. We think it safe to say that the most remote portions of our county are now within four or five hours of San Francisco.

Manufactures.

We regret that we have but little to report in this line. The leading establishment is the paper mill of Mr. S. P. Taylor, situated on the line of the railroad, and near the center of the county. It is located on the banks of a splendid stream of water, and near magnificent forests of timber. This is probably one of the most prosperous ventures in the State, and is the nucleus about which will yet spring one of those great mills we read of in the East. The Pacific Powder Mill in the same locality could be profitably operated but that it is closed in consequence of being a party to a combination.

The State Prison is located at Point San Quentin, where considerable manufacturing of harness, furniture and other articles is done by parties who lease the prison labor for the purpose. The agents, superintendents and foremen of the manufacturers living near the prison form quite a village.

Climate.

The climate of Marin county, a territory but few miles in extent, presents some singular anomalies. The western part, bathed by the fogs of the ocean, possesses a moist atmosphere, and for that reason becomes desirable for the purposes already explained; whilst on the other hand, the east side of the county has an exceedingly dry climate. This is readily understood. The prevailing winds arrive at the seashore saturated with moisture, but as they advance they come in contact with high hills, dry and thirsty, which absorb the water like sponges. The appearance of the country and the vegetation clearly proves this assertion. In the western and southern parts of the county fine living streams

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ever experienced here in winter which would at all approach "hard" weather in the East. We have white frosts sufficient to bite luxuriant grass and coddle up the edges of geranium leaves, no more. See tables.

flow all the summer, and moss is found adhering to the roofs and fences. Traveling west and north, only a few miles, the streams get weaker and weaker until they cease running, except in rainy weather. The moss disappears, and vegetation has a different appearance. In fact, we may say that our western and southern borders, with the exception of the lack of summer rains, very much resemble England or Ireland, whilst the eastern side is as dry as South Australia.

Poultry.

There are a number of persons who keep considerable flocks of ducks, and realize handsome profits from them. As many as a thousand are kept together. They are fed on wheat, and the annual cost of maintaining a bird is $1.15. They lay each about twelve dozen eggs a year, which sell for twenty cents a dozen, leaving a margin of profit of about $1.25 for each bird. A person keeping a thousand ducks may count on a very good living made in a very easy way. Chickens have never been kept in such large numbers, but have been found on a smaller scale to be equally as profitable. A party kept a careful account last year with his poultry, consisting of one hundred hens and six cocks, and found that they had netted him $191.

Fisheries.

In the eastern portion of the county, on San Pablo and San Francisco bays, very extensive fisheries are maintained and carried on by the Chinese. At Point San Pedro a large village has been erected, where several hundred men may be found in the season. Their principal quest is for shrimps, for which they set nets spread between piles, and covering a line several miles in extent. At least several hundred tons of dried fish are annually sent from this spot. In Richardson Bay, in the southeastern part of the county, is found the best locality in the State for planting oysters, and here the oystermen have located their farms.

At Tomales several fishermen are located, and on account of the abundance of the fish and their excellence find the business remunerative. Tomales smelt and tomcod are noted, and no better clams are found on the coast.

Vital Statistics.

Under an act of the Legislature, physicians, undertakers, and others are compelled to report all deaths to the County Clerk occurring under their knowledge, together with the cause. From these reports for 1873 we have made up the following:

Total number of deaths in the County	69
Adults	50
Children	19

Of these 27 died with pulmonary complaints, of whom 15 were strangers who came to San Rafael in the last stages of consumption. Four persons died of typhoid fever, three cases of which followed measles. Three died of liver disease, five from heart disease, three were killed. Two died from old age. Our population, by the census of 1870, was 6,720. It is now 8,000, and probably more. Take from the list the fifteen strangers who died of consumption, and we have the total death roll of 35 adults and 19 children in a year—54 in all, which makes our death rate less than eight in a thousand, and less than two in a thousand from consumption.

It will be well to observe the small percentage of deaths amongst the children. In other countries, where the extremes of temperature are very great, and the changes sudden and violent, at least two children die to one adult. And it may be inferred that the climate which favors children will also favor the aged and infirm.

Schools.

The public school system of our State is one of the best in America; good teachers are employed, and the means of obtaining an education is placed within the reach of every child in the State; in fact, we have a law which makes it compulsory upon parents to send their children to school a certain number of months in each year. The State levies a heavy tax for school purposes, which it distributes in the ratio of $500 per annum for every teacher employed. All over that amount needed is raised by the county. The schools of Marin are as good as the average of the public schools anywhere. We have twenty-five districts, and thirty teachers. The teachers before being employed are subjected to strict examination by a board. These examinations occur all over the State on the same day, and are conducted on the University plan. The questions to be answered are sent to the County Superintendent by the State Superintendent of Public Instruction, are given to the candidates only after they have entered the examination room, and prepared to give answers in writing, which they must do before leaving the room. New questions are submitted for every examination. There are sixteen hundred and thirty-six children in the county entitled to attend the schools.

Scenery.

The scenery of Marin county is one of our boasts. Those steep mountains and hills, impracticable for the plow, form landscapes far more beautiful than hundreds that people travel thousands of miles to rave over. Mountain views have ever been considered the acme of the grand in scenery. Although our mountains lack the romantic glamour attaching to others five or six times as high, yet they are as beautiful to the eye as any. Tamalpais presents as many fine pictures as any mountain in the world. Standing in Ross' Valley, near the residence of Mr. James Ross or of Mr. Tompkins, you have a view not excelled anywhere. This view has been painted by Bierstadt, and is regarded as one of his finest works. Before you in the immediate foreground is a most beautiful valley, ending a mile or more away at the foot of a sharp steep ridge, five or six hundred feet high, and thickly set with giant redwood trees. This ridge extends as it were across the view and forms a splendid foreground to Tamalpais, which looms up behind, a great triple-headed ribbed giant. You can sit here and watch this picture by the hour, and see new beauties. Every changing cloud throws a different shadow, and every new sun-glint gives another light. We have heard it compared to some celebrated views in the Tyrol. Possibly there may be some there equal to it, but we doubt it. From San Rafael, the view of Tamalpais, though not quite equal to the above, is so fine that no words are equal to the description. Photographs remind you more of imaginary scenes than reality. Picturesque houses and woods, studding a hillside, form another foreground to a Tamalpais picture, which even old residents are continually pausing to admire. San Rafael from the south is a third view, the like of which few persons are permitted to behold. You look down from a high ridge upon the beautiful village, and its handsome villas perched here and there in protected nooks or on sunny hillsides. The Catholic Church, with its tall white spire, and the splendid Court House, are commanding objects. Six or seven miles from San Rafael you can see the track of the North Pacific Coast Railroad climbing up the sides of the mountains and winding in and out of the lateral cañons in a manner to fill you with astonishment. And further on you will find some splendid forest scenes as you go down toward Tomales. At the Reed Ranch, which lies right at the base of Tamalpais, the scenery is very lovely; the bay in one direction and the mountain in another.

From San Rafael the marine view is exquisite. The bay lies in front, on which water crafts are always passing, "their white sails gleaming out in the east;" the islands and the high hills on the Contra Costa side forming a fine background. Think of having this picture to the left and Tamalpais to the right!

Game.

Being so near the "pot"-hunters of San Francisco, our birds are made wild and scarce, except on lands thoroughly guarded by the owners. Enough quail can be easily found, however, to furnish good sport. In the fastnesses of the mountains deer still lurk.

Fish Culture.

At Bolinas two parties, Mr. McGovern and Messrs. Grinter Bros., are making the experiment of breeding trout. Until the fall of '74 success seemed certain, but at that time a heavy storm drove the sea in upon their ponds and damaged the establishments to a considerable extent. Repairs have been made, however, and it is to be hoped that hereafter the sea will be kept out. Mr. Wm. T. Coleman has succeeded in raising ten thousand Eastern trout at Lagunitas, the artificial lake from which San Rafael is supplied with water. These have been put into the lake, and will no doubt stock all the streams below that. Under this head, rather than that of fisheries, we consider it appropriate to say that our streams in the southern and western parts of the county abound in fine game fish. The angler for trout can find no better field for his sport in the proper season. In winter, salmon and salmon trout run up to spawn, and are sometimes taken in considerable numbers and with great ease.

County Government.

The affairs of our county, and the administration of its finances, are in the hands of a Board of Supervisors consisting of three members. These gentlemen are elected for three years, and being men of high standing we are insured intelligent and honest management of our local matters.

Crime and Litigation.

Or rather the lack of crime and litigation would be more appropriate. Our jail seldom has an occupant, the District Attorney seldom has to draw an indictment, and the office of Grand Juryman is a sinecure. For the four last months of 1874 the county paid but $3.80 for boarding prisoners. We have known a month to elapse without a new suit having been brought in the Courts.

Tamalpais.

Whoever approaches the Golden Gate, or comes upon the bays adjacent thereto, will see Tamalpais [Tam-al-pice] standing like a grim sentinel, guarding the entrance to the seaport of California. Far off at sea the mariner beholds his peak, and the traveler by land is continually seeing new beauties in his profile as he observes him from different aspects. The ascent of Tamalpais is made from San Rafael in two hours, and without any great degree of fatigue. A recent writer has described the panorama from the summit, which we incorporate: We were on the ridge, and turning to the left were astonished to see the pole of the coast survey signal, by which we knew that we were on the summit, 2,600 feet above the sea. We had been just an hour from Lagunitas. A dozen steps brought us into the regular trail, but not desiring to look until we got on the tip-top we jogged on to the signal station. Dismounting and loosening the girths, we turn to view the great panorama at our feet. The first thing which attracts us is a scene in the immediate neighborhood of Point Bonita, the north pillar of the Golden Gate. There, just at our feet almost, a contest is going on in a little bit of water, between eight or nine toy vessels; some are square rigged and some are fore-and-afters. They all have their heads pointed inwards, but with a light wind and a head tide seem to be standing still. "*Can* those be real ships and schooners?" we say. "*Can* that be real surf on the beach for miles south of the Cliff House?" "*Can* that be the Cliff House?" We rub our eyes and conclude to go round the horizon with the sun. That great table before us is the Pacific Ocean, calm and serene, but his bosom heaving with never-ceasing swells. Those are odd looking birds! No, they are outward bound vessels! And there is a black object, not as big as a lizard, which has its head to the northwest; that is a propeller. Look beyond and we see the Farallones miles away, but so near, apparently. Outside of them twenty or thirty miles a heavy fog bank skirts the horizon. And what are those cliffs, which stand up so boldly a little to the north of west, and the long narrow sheet of water extending into the country just back of them? Point Reyes is one and the other is Tomales Bay or sound. Just before us, looking towards Tomales, is an immense grove of redwoods, many thousands of acres in extent. Still turn and you see, far away in the northwest, a broad summit rounded off on the eastern side. That is St. Helena, and a little to the right, but a much nearer neighbor, is Donahue. And still further to the right comes Vallejo, spread over many hills; Suisun Bay and the marshes appear beyond Vallejo. The Brothers, and Red Rock, look as though you saw them beautifully delineated on a map. A little to the right and we have Mount Diablo, no longer a big double-headed potato hill, but a real monarch, a king amongst kings. His sides look more corrugated from aloft, and he is generally more grand and majestic. Swing again, and Berkeley comes in line, the two colleges and the asylum being quite near. Further, and Oakland gleams within our vision; and there also is Goat Island, looking like a sleeping horse, the body lying towards San Francisco, the head and neck towards Contra Costa. Here we experience a disappointment, for haze and smoke hang over the bay beyond Goat Island, and partly obscure the metropolis. We are not able to identify particular localities, but see only a great number of whitish houses covering the different hills. A big ocean steamer is outward bound, and is just passing Alcatraz, and tugs and ferry boats smoke in front of the city. Below is San Rafael and surroundings, by far the prettiest of all the pictures. From where we sat to the Court House is about four miles on an air-line, and yet it seemed not a mile, not as far as you think it is from the ridge south of town. Every house great and small could be identified. It reminded us of a very fine photograph, on a rather large scale. One more picture we must mention, that is the Lagunitas. Nothing can excel the beauty of this glistening shiny little gem as seen nestling in the hills beneath us.

Our Roads.

With infinite labor and perseverance, not to omit skill, we have perfected a most admirable system of public roads through our county; and generally keep them in thoroughly good order throughout the year. The hilly nature of the country has made careful engineering necessary, and so you will find our roads working up over divides and down along deep ravines, pursuing a grade so regular and gentle that you trot your team up hill and down in places where formerly nothing but a goat could go in safety. The road from Saucelito to Bolinas is one of the most beautiful and romantic to be found in this or any other State. It works up to the summit of a high ridge by easy grades and graceful curves; then follows the course of a deep ravine by clinging to its steep side to the ocean, where you meet the breakers tumbling and thundering on the beach. Thence it leads along the hill-sides, almost overhanging the sea, for several miles. In clear weather you observe inward and outward bound vessels, steamers and sailing crafts, and far off the Farallones with their sharp rugged peaks jutting up out of the sea. The Cliff House, and beach near there, is very plain in view, as are the various light houses. With a good four-in-hand a party may drive from San Rafael over that road to Bolinas, and then on to Olema and return the same day.

Water.

Many persons knowing that health and comfort depend very much upon the kind of water we drink and wash with, will be interested to know that in no country can be found purer or better water than in Marin county. In the southern and western portions the streams are strong and "living" during the entire year, and the character of the water is wholesome and pure, free from all mineral or vegetable contaminations of an unpleasant or dangerous nature. In the eastern portions the streams are not as strong, but the quality is the same. Here will be appropriate to describe the manner water supply is frequently secured in California. The town of San Rafael is furnished with pure mountain water from an artificial lake called Lagunitas, constructed on the side of Tamalpais, several miles from the town.

Alderney Cattle.

It is thought for many reasons that our county is peculiarly adapted to Jersey cattle. They produce the richest butter, and a greater amount of it in proportion to the food consumed, than any other breed. Being light and agile, they climb our high hills with the greatest ease, and not only entirely subsist on our grasses, but produce quantities of butter with no other food. Mr. A. Mailliard has imported a herd of Jerseys of the purest blood, for the purpose of improving the dairy cattle of the county.

Ross Valley.

The site of San Rafael is the confluence of two valleys; the principal of which trends off to the northwest and intercepts at a little more than a mile distant still another valley, which is broader and more important than the first named. This last is Ross Valley. We cannot see in what respect this charming vale is inferior to the most favored localities in the county. In fact it is a question whether it is not, for several purposes, the superior locality of all others. The views from it cannot be surpassed; its locations for country seats are unrivaled, and its facilities of travel are equal now to San Rafael itself—as the railroad extends through the valley. Properly speaking, Ross valley should be considered part of San Rafael, and be credited with all its climatic advantages. No one should see one without seeing the other.

Bolinas.

This is the name of a bay on the south coast on which is situated a village of the same name, and by which the township and school district are also known. The neighboring country is an excellent dairy region, and a considerable amount of good farming land is also found. Cutting fire-wood for the San Francisco market is an important interest, and thousands of cords are annually brought from the spurs and ridges of Tamalpais, and in deep valleys between them, and shipped away. A steamer called the "Continental" plies regularly between Bolinas and San Francisco, as do a number of staunch sailing crafts. A stage line runs to Saucelito.

Olema.

This village is situated in the interior of the county, two miles from the line of the North Pacific Coast Railroad. It is in the midst of a fine country, generally devoted to dairying; although much of the land is admirably adapted to farming purposes. Mr. J. McM. Shafter's residence is only a short disiance from this place. Lying to the westward is the celebrated Punta Reyes dairying country; which being within the region of maximum moisture is considered the best large body of dairy land in the State. The whole of it belongs to Mr. Shafter, the estate of his deceased brother, and to Mr. Chas. Webb Howard. They own respectively: J. McM. Shafter, 29,672 acres; estate of O. L. Shafter, 17,911 acres; Charles Webb Howard, 17,584 acres. In addition to these separate amounts these parties own a tract of 10,000 acres jointly.

Nicasio.

Whatever can be said in favor of the Olema country may be repeated in regard to Nicasio. Though it is removed some miles from the coast yet there is sufficient moisture to make it an excellent dairy country. The farmers in the neighborhood are among the best and most enterprising in the county. They have a Grange Organization, of which P. K. Austin is Master, and J. W. Noble Secretary.

Tomales.

Two causes conspire to make this the most populous and wealthy settlement in the county. It is the best body of farming land we have, and for that matter is second to none in the State; and it was declared public domain, divided up into small parcels, and thrown open to settlement. Its immense fertility, however, would not avail for potatoes, but for the sea moisture which supplements the spring rains and brings the crops on to ripeness. This is the potato country *par excellence.* Whoever wants a good farm and a cheap one should seek this locality. Lands have heretofore been low in this vicinity on account of its remoteness from market, and poor traveling facilities. The railroad, however, will alter all that, and in twelve months Tomales lands will average $100 an acre.

Novato.

Novato is our fruit-growing region, and in that respect it is second to no place in the State. To understand the last remark fully, the reader should know something of California fruits; he should know that in no other country on the globe is there such a variety, abundance and excellence of fruits. You can go to almost any fruit-stand in America in the fall months and find golden-colored pears of perfect shape and exquisite flavor, which, upon inquiry, you will find were grown in California—have traversed plains and deserts, climbed the lofty ranges of the Sierra Nevada and the Rocky Mountains, and are there sound and perfect, thousands of miles from their home. Our fruits are a constant source of surprise to the stranger. You will find strawberries, raspberries and blackberries for sale on the same stand, and will be told that strawberries are in season during nine or ten months of the year, and that raspberries go over into the blackberry season. In vegetables much the same thing will be remarked. Cauliflowers, green peas, new potatoes, asparagus, beets, turnips, celery, cabbages, are all fresh in season at once; and nearly all the time. This is explained when you know that we have spring nearly all the time; and that rose-geraniums growing in the open air often attain the size of a hogshead. The quantities of fruits exposed for sale on the stands in the towns is another matter of astonishment. You will see ten bushels of Bartlett pears in a heap; as many more of other varieties; great piles of plums, and apples and peaches by the cart-load; to say nothing of a ton or two of grapes. This is merely the retail market. Go from that to the wholesale market, and your wonder will know no bounds. You will see block after block of stores devoted almost exclusively to the sale of green fruits and melons. You will see at one view enough in your estimation to feed a nation, and yet the greater part is consumed. Go to the canning establishments, and you will find hundreds of men engaged in that branch of the business. And now that the Alden process of drying has been successfully introduced, hundreds of other men are engaged in that department. To give you a fair idea of our productions, we will mention that in 1874 it was estimated that 5,000 tons of currants perished in Alameda county for lack of consumption, notwithstanding thousands of tons were dried and otherwise prepared for foreign consumption. Next season many additional dryers will be put in operation to correct this waste. Our notice would be very incomplete were we not to make special mention of our grapes. Go where you will, north or south, in valley or on mountain side, and you will find the grape, and not in meager quantities, but by fields. Our great vignerons count their vines by hundreds of thousands, and some by half millions. We have procured the most choice varieties from Europe, and to the taste they are as luscious as in their native habitat. We have the Tokay as large as the eggs of a quail, and many other fine varieties almost as good. Plums have no insect enemies, and hence are perfect. It is predicted that in twenty years our exports of prunes will be greater in value than our exports of grain. Elsewhere we have referred to wine.

At Novato you will find one of the great orchards of the State, owned by Messrs. Sweetser & De Long. There you will see fruit-growing conducted on a scale commensurate with the other great undertakings our country is noted for. You will see acres and acres of apples, pears, peaches, plums, nectarines and apricots; and you will see a place the very model of order and exactitude. The shipments from this place aggregate hundreds of tons annually. In addition to which they manufacture a great quantity of cider, which is sold as such, or manufactured into vinegar.

To the Reader.

When you have read this pamphlet preserve it, and lend it to your neighbors, or send it to some friend in the Eastern States or elsewhere, who will value the information it contains, and might be likely to come himself or send intelligent, industrious farmers to settle in California. Other copies of this, and similar information for the same use, may be obtained gratis of the CALIFORNIA IMMIGRANT UNION, San Francisco, or will be directed and mailed to suitable persons in the Eastern States, Europe or elsewhere on request, and letters requesting information will be answered promptly.

Transportation.

In reference to passenger rates and freights, our correspondents, and others, in the Eastern States and Europe, are referred to the following gentlemen: Messrs. G. T. Sewall, General Passenger Agent of the Pacific Mail S. S. Co., 257 Broadway, N. Y.; F. Knowland, of the Central and Union Pacific Railways; J. N. Abbott, of the Erie Railway, New York; L. M. Cole, of the Baltimore and Ohio Railroad, Baltimore, Md.; E. A. Ford, Missouri Pacific Railroad, St. Louis; E. St. John, Chicago, Rock Island and Pacific Railroad, Chicago; T. L. Kimball, Union Pacific Railroad, Omaha, and to Mr. W. C. Thompson, 22 Margate Street, London, E. C., England.

Directions to go to Drake's Bay Colony.

Take San Rafael boat, 1:45 P. M., daily; get ticket for Tocoloma Station, on North Pacific Coast Railroad; take stage for Olema, arriving there about 4:30 P. M., thence by horse or carriage, eight miles, to the "Home Ranch." Mr. W. N. Shafter, in charge, will direct parties over the tract.

California State Library

CALIFORNIA:

BEING A SHORT ACCOUNT OF THE

Climate, Health, Wealth, Productions, Fruits and Values of Property,

—BY—

GEORGE W. GIFT.

WITH AN APPENDIX,

Containing Much Useful and Interesting Statistical and other Information.

The original papers herein were first printed in the SUNDAY APPEAL, of Memphis, Tennesssee, and are now reprinted in this form by the permission and courtesy of the proprietors of that journal.

MEMPHIS, TENN.
HITE & KELLY, PRINTERS,
1874.

CALIFORNIA STATE LIBRARY
CALIFORNIA SECTION

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CALIFORNIA.

CLIMATE.

I have been called upon recently by two dozen or more people, who wished me to tell them in very few words (as they know my time is valuable) all about the climate of California—whether it is anything like what the "gushers" from the "slope" are in the habit of describing when they write back—whether it is really cool in Summer and mild in Winter? And as there are more interested in the matter than those I have seen, I conclude to print my answer. I hardly know where to begin. The State extends between the parallels of thirty-two-and-a-half and forty-two degrees north latitude; has within its boundaries ranges of mountains, continually covered with snow, and also a region of thousands of square miles of desert, which in Summer is as hot as a furnace and as dry as a powder-horn—hence there is a range all the way from 100 degrees above zero to the freezing point. This would indicate that the climate of the immense territory called California, is not all alike, any more than Maine is like Florida; which is so. Invalids are those who are inquiring about climate; to two classes of whom I shall address myself, to-wit: Those suffering from complications arising from a deranged liver, and those stricken with disease of the lungs. I take it that the first class desire a bracing atmosphere, free from malaria, equable, mild and temperate. You do not wish it hot in Summer or cool in Winter, but a happy mean between the two. To such the counties adjacent to San Francisco are to be commended—say Monterey, Santa Cruz, Napa, Sonoma, Mendocino, Lake, Marin and SanMateo. Lake county contains several mineral springs of extraordinary medicinal value; curing nearly all cases of dyspepsia and deranged liver. In Summer you will get an average maximum day temperature of seventy-five degrees and an average minimum night temperature of from sixty to sixty-five degrees. The highest temperature will not warrant Summer clothes, and the lowest demands blankets on the bed at night. In Winter grass grows about as it does here in the latter part of March, and it is very seldom that the mercury recedes to the freezing point. Occasionally several winters occur in succession in which the temperature does not get down to 32 degrees. The seasons are divided into "rainy" and "dry." The first begins in November, and is generally opened by a heavy storm, with the wind from the southeast. This storm of wind and rain may last for forty-eight hours, although generally not so long. It clears off with a blue sky and balmy atmosphere, and the grass springs up as if by magic, and in a few days the hills and valleys are clothed in a garb of emerald. During the Winter, and until April, it rains frequently, though not all the time. December is marked sometimes by twenty rainy days. January, February and March have less damp weather. In April a last shower occurs, and then begins the dry season. From that time until November there is neither rain nor dew; everything is dry and parched; the grass cures and becomes hay as it stands in the fields, and the dumb brutes fatten and grow sleek on it. Persons camping out require no tents.

The warmth of this climate in Winter is due to the "set" of the Kuro-Siwo, or Japanese gulf-stream, against the coast, as does the Atlantic gulf-stream against the coast of Great Britain. Its bracing coolness is due to the fact that the constantly prevailing winds of the coast blow from the Northwest, impinging upon mountains along the coast, and following the direction of the ranges. These ranges are generally sufficiently lofty to bar the ingress of these fierce northerly sea-breezes into the interior; but at San Francisco and several spots near there, gaps are made by the outflowing of water courses, or depressions, and the winds sweep in. The speed of these winds is accelerated in daytime, in Summer, as they rush inland; accelerated because the bright sun sets the plains glowing, and rarifies the air, and sends it upward. A vast store of sea-breeze, tonic and invigorating, is drawn through these funnels, and distributed through the counties named. Just at the point where it rushes in, it is likely that the climate is too raw for a delicate person, but after it has been toned down by passing over a few miles of radiating ground, it makes a most delicious climate. For the reason that the breezes named are, to a certain extent, laden with moisture, the localities named are not all to be recommended to persons suffering from pulmonary troubles, not to be recommended as compared with the counties farther South. If you will look at the map you will observe that a mountain formation completely shelters Santa Barbara and the Southern counties. San Bernardino is the place I would select as the spot for consumptives.* It has an exceedingly dry atmosphere, being sixty miles from the sea, with an altitude of twelve hundred feet; and the climate is so mild that tomatoes have been cultivated this season during the entire Winter. As a matter of course the tropical fruits flourish; so they do also in the counties about San Francisco. As between Florida and San Bernardino, I should prefer the latter for many reasons: First, a better climate—better because it contains less moisture, and is not subject to changes in consequence of northerly winds, and has no taint or trace of malaria (or, to speak more correctly, has none of the parasites which occasion the fevers we attribute to malaria); second, the scenery is bold and picturesque, the surrounding mountains inviting healthful rambles and excursions. I have mentioned San Bernardino merely as a representative place. I presume there are fifty other spots in the counties of San Diego, Los Angeles, San Bernardino, Santa Barbara and Ventura equally as good as the town of San Bernardino. In Summer the weather in the Southern counties is warm enough to be oppressive in day-time; hence I do not recommend it to the sufferer from a deranged liver. There is a subtle principle in the atmosphere called ozone, which is always detected in great quantities in times of healthfulness, and cannot be found during the prevalence of violent epidemics, hence it has been thought that this principle is antagonistic to the influence that causes diseases in men. San Francisco is the most healthy city in America, and there, also, ozone is found in greater quantities than elsewhere. In the valleys near by, and in the foot-hills and mountains, the quantity increases, and human life is subject to fewer vicissitudes.

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*Warner's Ranch, in San Diego County, I think, would be better than any other spot in California for consumptives.

HEALTH.

To possess houses and lands and mines and bank stocks is a very pleasant and comfortable sensation, if one has a good stomach, digests his food, sleeps soundly and is not troubled with aches and pains; or the consciousness that an insidious enemy, as persistent as the coral insect, is toiling to destroy his vitals. But let him have the aches and pains, the feeble stomach, impoverished blood and torpid liver, and see how quick all his pleasures vanish; how he envies the poor laborer who goes from house to house seeking a job! In other words, health is above all other considerations. This will be appreciated only by the afflicted; or, possibly, the poor, who are never able to provide medicines and comforts in case of sickness, or pay for the attendance of a physician. To such persons accounts of healthy countries will be interesting. Taking out a narrow strip along the margins of the Sacramento and San Joaquin rivers, and that only about the lower part of those streams, and the remainder of the State is as free from malarial influences as is the highest spot in the Rocky Mountains. In the Santa Clara valley, where vegetation in the spring is as rank as in the Mississippi bottom, or on the Pajaro (Pah-ha-ro) where one thousand bushels of potatoes have been grown to the acre, no man was ever known to have a chill or a bilious fever. So complete and entire is the immunity enjoyed by these people from the ordinary ills which afflict the human family in the fever and ague countries, that whenever a case of sickness occurs they are totally at a loss to know what to do, and a whole neighborhood will become panic-stricken about a matter which would cause but a slight concern with us. My sister relates a circumstance which occurred under her observation, and which will forcibly illustrate the last position. She was staying at the house of our brother-in-law, in Solano county, in the fall of 1869; the weather had changed, and a neighbor had contracted a violent cold and was threatened with pneumonia. His hired man was dispatched for a doctor, and as he passed by hurriedly informed Wood that Mr. Jones had gone to bed sick; they thought he had pneumonia, and he was going for the doctor! Forthwith Wood rushed into the house in a state of great excitement and told his wife that Mr. Jones had gone to bed sick, they thought he had pneumonia, and had sent for the doctor! Together they came to my Tennessee sister, and went over the alarming story—Jones had gone to bed sick, they thought he had pneumonia and had sent for a doctor! What is there so alarming about that? queried she who was accustomed to see sick people. Why he is sick! What of it? Give him a dose of laudanum or paregoric, and wait for the doctor. Laudanum? Paregoric! No such thing about the house! This is in no wise an exaggeration, but an accurate statement of an actual occurrence. As I told you in my first paper, the summer climate is so cool that summer clothes are forbidden, and in winter the weather is so mild that you hardly need winter clothes. I have before me a report of meteorological observations taken at San Francisco for the month of December last. The highest range of the thermometer was sixty degrees,which occurred in the daytime, and the lowest was forty-three degrees, which occurred at night. From the eighteenth to the twenty-ninth inclusive, the mercury reached fifty-five degrees each day as its maximum hight during the daytime, and at night receded to forty-nine or fifty degrees. The extreme range of temperature being but six degrees in each day, and a group of twelve days in mid-winter were exactly alike! This every close observer knows is very fine spring weather, with the temperature high enough to be balmy, but not low enough to give cold fingers to the laboring man; no matter whether he is out doors or in; whether finishing cold iron or covering a house. And it is this even temperature which is so grateful to those in declining years, or in feeble health. He does not go to bed with the wind coming hot from the south and wake up in a few hours to find it coming as sharp and piercing as a knife from the north, with the very marrow in his bones freezing. The extraordinary healthfulness of the people gives them extraordinary powers of producing wealth, and it is due to this that you see the laboring people of San Francisco possessing and amount of money equal to the public debts of Tennessee, Arkansas, Georgia, Mississippi and Florida, which debts we all know are considered burdensome and crushing to five millions of people. Strange, isn't it, that the forty thousand workers of San Francisco are able to hold the debt of Tennessee, which we consider a millstone about the neck of a great State, having a population of a million and a quarter of people? Yes, and they carry the onerous debts of the other Southern States mentioned. That the working people of San Francisco are more industrious and intelligent than those of Tennesse cannot be proven, yet we see a small number of them possessing great wealth. Where is the explanation? They do not get higher wages there than here, BUT THEY WORK THE ENTIRE YEAR; they are not enervated or reduced by heat, or pinched by cold. Day after day they keep striking. It is rarely we find a climate friendly to the human family, which at the same time is favorable to the highest development of the vegetable kingdom. On the mountains we find an atmosphere congenial to life and the physical development of man, but we will also find the ground stony and sterile. In this paper I have endeavored to show that the climate of California is peculiarly friendly to the human family; in my next I shall show that it is also wonderfully favorable to the production of those things needed to support life.

A gentleman writes me from Hernando, Mississippi, under date February 16th, as follows: "Will you do me the favor to consider the following: I have been suffering with lung disease, and the FEAR of it, for three years. I have been to Minnesota in Summer and Florida in Winter; have given up all business and do nothing but nurse myself and think of my poor weak body. I am yet strong enough to travel. Would there be any chance for me in California?" To answer this I will lay down the programme I would pursue, were I in your place; in which I will describe the climate again as I did in the first paper in this series. Submit the matter to your physician, and let him decide. Go to California, by rail, in May; leaving Memphis about the middle of the month. Stop in the foot-hills on the West side of the Sierra Nevadas, say at Auburn. There get a horse (not a "bucking plug" similar to the one Mark Twain first owned in that country), and strike across the Sacramento valley to Napa, and up to Clear Lake, fishing and hunting and rambling in the mountains till the last of September. Then travel on horseback Southward to San Bernardino, where you can remain rambling in the mountains, prospecting for gold and silver until the Spring opens. If you can go through that programme I think you will recover your health. When you arrive at Auburn, the rain will have ceased, and the atmosphere will be as pure and balmy as you could wish; no sea moisture in it or mountain frost—just right. You will find Clear Lake a beautiful sheet of water one thousand two hundred and thirty feet above the sea, with a coast line sixty miles long, and waters as pure as the lakes of Switzerland. It is completely shut in by mountains, which keeps out the sea moisture. The surrounding country presents many objects to induce exercise. There are mountains to scale, mines to discover, game to get, from a grizzly bear to a quail—and fish in abundance. And, as we have said previously, not a drop of rain or particle of dew will fall on you. The trip South can be made through lovely valleys, sheltered by mountains. At San Bernardino you will find the rain-fall in winter very light, and the air remarkably balmy. The theory of this trip is to secure a climate which is dry and bracing; neither too hot nor too cold; where the party may enjoy outdoor exercise every day in the year without danger or risk of taking cold.

CAN I MAKE A LIVING?

The query at the head of this paper is what I am to reply to, and I confess that the job is a tough one. "Professor John Phœnix" (Lieutenant Derby) was of opinion, years ago, that our system of expressing matters comparative was imperfect. If you meet a man, and ask him how he is, he will reply "Tolerable, thank you." If you ask about a young lady, the party inquired of will be likely to say, "Passably good looking." This style of answer, the "Professor" urged, did not convey a meaning sufficiently accurate. He thought that all these things should be expressed by figures, as is the standing of the children at the public schools. Then, instead of a man replying "Tolerably well, thank you," he should say, "I am well, 46." So, also, when a party is desired to say how pretty his sweetheart is, he would promptly answer "Pretty, 94!" Now, if this system should be extended to each man's capacity for making a living, made up from his standing in industry, economy, prudence and energy, I should have had no difficulty in answering the party who desired my opinion as to whether he would be able to make a living in California. But unfortunately this excellent system is not in vogue, and hence I have a bad job. I will essay to cast some light upon the subject, however, without the aid of figures. What man has done man can do again; and if I tell you what men have done and are doing in that country you can form a pretty good idea of what you can do. In December, 1848, I sailed into the bay of San Francisco, in the good sloop-of-war St. Mary's. I was a midshipman, and my station at anchoring, etc., was aloft. As we passed the "heads" I was directed to go on the royal yard and look out for a town houses and shipping. I did as I was ordered, and save and except a deserted barracks, and an old fort on the point, I could see nothing which would indicate that the country had ever been trod by the foot of man. Sailing a short distance further we "opened" our flag ship, the Ohio, riding at her anchors off a spring, where she was replenishing her stock of fresh water; but there was no house in sight from her. The ground I overlooked from my lofty perch on that bright December day, but twenty-five years ago, is now a part of the site of the great city of San Francisco, and the person sailing in now will be charmed by the evidences of busy life all around him. He will see grand steamers sailing out to China and Japan, to Oregon and British Columbia, to Mexico and Central America, and to the islands of the Pacific and Australia. Coasting vessels, with their glistening white wings are coming in from and going to the north and south. At the numerous wharves you see an array of the noblest merchant-ships to be found in the world, showing a very forest of spars and yards against the sky. Steam-ferries are plying hither and thither, and bay boats, going and coming, help to finish the marine picture. Over where we found the Ohio, is a handsome little town, sheltered behind the hills, and the locomotive whistles and snorts; for it is the terminous of a railroad. This busy scene would indicate that in the past quarter of a century these people have been busy, and that many have been and are making a living. Probably my readers will demand better evidence to support the last proposition than the mere seeing of towns, ships and steamers, and railroads, where was only a wilderness a few years before. Let us go, then, and inquire concerning the condition of the people of this country, and see whether they are making a living or not. In San Francisco (which was not so large as Raleigh, our ancient county town, when I first saw it), we will find that the laboring population has on deposit in the Savings banks a sum a trifle greater than FORTY-THREE MILLIONS OF DOLLARS! The people who own this vast deposit are a little over forty thousand in number, hence it is fair to presume that these depositors and their families are in no danger of starvation; especially as they live in the country where food is cheaper than elswhere in America, and where wages are highest. Possibly the reader may not comprehend at once the prosperity this deposit of savings represents. San Francisco has a population of about one hundred and sixty thousand, and she has the savings mentioned. A year ago, or thereabouts, the governor of New Hampshire took occasion in his message to congratulate the people of his State upon their prosperity; which he said was evidenced more pointedly by the accumulations of the working people in savings banks than in any other way. These accumulations he told us amounted to seventeen millions of dollars. New Hampshire has a population just twice as great as that of San Francisco. Therefore eight and a half millions in that city would represent greater prosperity according to the New Hampshire standard. Now if that standard is correct how much greater must be the prosperity where the accumulations PER CAPITA are FIVE TIMES AS GREAT! Do you begin to comprehend California prosperity?

Let us advance a step further. We measure the value of a farm by its fertility and capacity of production, and the same rule will apply to a State. Our great SAVANT, Commodore Maury, delighted to boast of the cotton States, which had a capacity to export products of the value of forty dollars PER CAPITA, per annum. California exported during the past year products of the value of eighty millions, equal to ONE HURDRED AND THIRTY-SEVEN DOLLARS PER CAPITA! No other country on earth can equal this. Just as I wind up this grandiloquent assertion, a friend at my elbow suggests that he saw in the Appeal, the other day, an extract from a letter printed originally in the Rural Sun, of Nashville, and written from California, which gave a very doleful account of affairs out there. The writer had had hard luck, had seen nothing but hard times; and believed worse were coming, and advised all who were doing well to let well enough alone. With the latter advice I agree, but with his assertion that hard times prevail in the golden State, I deny. I deny it for this reason: In the year 1872, the wheat crop was very heavy, and great prosperity followed it. In 1873, the breadth sown was greater but the yield per acre much less than the previous year, but the price in England advanced so that the crop of '73 yielded ten millions of dollars in value more than the crop of '72, which has brought very great prosperity to the farmers. Coupled with the increase in the value of the wheat crop comes an increase in the production of the precious metals of another ten millions, an increase in the wool clip of eight million pounds, besides a great advancement in other industries. It is notable that the financial panic of the past fall made no impression out there. In the great cities of the East it caused the closing up of factories, hunger, and starvation; nothing of the sort occurred West of the Sierra Nevadas. It so happens that the quality of the crop of the country depends upon the quantity of rain which falls in winter. Enough has already fallen to insure an immense yield for the present year, and if the price continues high in England the exportation of wheat to that country will reach the neighborhood of fifty millions of dollars in value. I do not know that I have shown any man that he can make a living in California, but I have tried to show him that a good many others are doing it, and if he will only do as they do he will soon have money in bank. What do they do? WORK. What kind of work? Anything, everything. If no job offers at tape-measuring, book-keeping, or other genteel occupations, try driving a plow, herding sheep, cleaning horses or digging ditches. If you go there with the expectation of making a living without work you will find yourself in the condition of the party who writes for the Rural Sun.

A gentleman writes me from Oxford, Mississippi, under date February 9th, as follows: "If, in your proposed article in next Sunday's "Appeal," on California, you can devote one paragraph to a description of the city of San Diego—its location, population, future business, together with the quantity and price of lands in its immediate vicinity—you will confer a favor on many readers of the "Appeal." I am afraid that it will take more space to answer the above intelligibly than the "Appeal" would be willing to spare. I go to the census report of 1870 and find the following: Assessed value of property for the county, four and a half millions, with a county debt of one hundred and ten thousand dollars. It has ten thousand acres of improved land; its farms are valued at seven hundred and eighty thousand dollars, which yielded productions valued at one hundred and sixty thousand dollars. It has live stock valued at half a million dollars, which are numbered as follows: 5687 horses, 723 mules, 1268 milch cows, 16,443 sheep, 1683 hogs and 839 oxen. It produced 32,947 bushels of wheat, 9330 bushels of corn, 18,745 bushels of barley. The population of the county is 5180, and of San Diego city 2300. I should estimate the area of the county at 15,000 square miles; that is to say it has an extent of 150 miles from east to west, and 100 miles from north to south. As this county was the first settled in California you will naturally conclude that the land must lack in fertility, as only about a thousandth part of it has been improved, and that with a very light production—not enough to feed its sparse population. The adjoining county of Los Angeles has two hundred and thirty-four thousand acres of improved land, valued at four and a quarter millions of dollars. Her live stock is valued at twelve hundred thousand dollars—one item of which is two hundred and fifty thousand sheep. San Joaquin (Wah-keen) is the great agricultural county of the State. Her annual productions are valued at four and a half millions; the two main items of which are two million four hundred thousand bushels of wheat, and a million bushels of barley. The farms in Alameda county are valued at sixteen millions; Santa Clara is valued at twelve millions, whilst Sonoma and Solano each are rated at ten millions. I cannot tell anything about the price of lands near San Diego, but I imagine they are not held at a very high rate.

FRUITS.

Fruit-growing may not be an interesting subject to the general reader, but I am sure fruit-eating will be. Only now and then we will find a person who takes an interest in planting trees and vines, but we will scarcely find one who will not prick up his ears at tales of luscious peaches and delicious berries of the kind found in California. If you go to any fruit stand in any city in America, in the fall months, you will be pretty sure to find golden-colored pears of the most perfect shape and exquisite flavor, which, upon inquiry, you will also find have been brought from California! Yea, have crossed two lofty ranges of mountains, one great desert, and the vast plains of the West; have, in fact, crossed the continent, and are here to be eaten, three thousand miles from where they grew! In August, 1869, I had ample opportunity for obtaining information on this subject. I had a whole month of leisure, and I spent much of it about the markets of San Francisco, and in visiting several fruit-farms and orchards. The first thing which strikes you is what appears to be the incongruity of the seasons. You find strawberries, raspberries and blackberries for sale on the same stand. Upon inquiry, you are told that strawberries are in season during ten months of the year, and that raspberries go over into the blackberry season. In vegetables much the same thing will be remarked. Cauliflowers and green peas, new potatoes and asparagus, are all fresh in season at once. This is explained when you know that they are having Spring nearly all the time, and that rose-geraniums growing in the open air often attain the size of a hogshead, and that the roses have a glorious blooming time during December and January. The quantity of fruits exposed for sale on the stands along the streets is another mattter of astonishment. You will see ten bushels of Bartlett pears in a heap, as many more of other varieties, great piles of plums, apples and peaches by the cart-load, to say nothing of a ton or two of grapes; and these stands are as numerous as in other cities. It occurred to me that these heaps would never be eaten; but it occurred to me, further, that the Italian dealers knew the demands of the public, hence I concluded that the tons must be devoured each day; and I found upon making a purchase, that no man, be he ever so poor, need be without fruit. For a silver dime (greenbacks do not circulate in that country) I got half a dozen magnificent Bartletts, and a pocket full of plums, big enough to bite. For a like sum I could get two pounds of grapes—and such grapes!—but I forbear. The peaches I did not think as good as ours, but they were very superb, and, as the crop never fails, there is a deal of money made in growing them. At the breakfast table, at the proper season, you will find the dish of fruit always conspicuous, and the dish is ever a large one. It will generally contain cantaloupes, pears, peaches and grapes. The latter is the most common fruit of the country. The same dish will appear at dinner and at tea. They may have better fruits, and a greater abundance in the South of France, but I doubt it. The Alhambra fruit-farm of Dr. Strentzle, near Martinez, in Contra Costa county (about twenty miles from San Francisco, Northwesterly), is a wonder to behold. In that country there are no insect enemies of fruits, and as the soil is the richest and the climate the most favorable, you see productions of the highest excellence. For instance, the doctor conducted us to a plat of ground planted with dwarf pears. The trees were so overloaded with fruit that it became necessary to prop them up from all sides. Not a place was missing amongst some thousands of trees, nor was there a blighted leaf or limb.

"Do your trees bear this way every season, doctor?" I inquired.

"Oh, yes," he answered, "the earth is black to an unknown depth; in fact it is all soil."

I do not think I much over-estimate the crop at one thousand bushels to the acre. Next came the plums, which were to me a real novelty. I had never seen the finer varieties growing in perfection, and I very much doubt whether they have ever been seen out of California as fine as they are there. Not a specimen marred by curculio; hundreds of thousands as big as walnuts, all alike and all perfect. Almonds and English walnuts are sure to attract attention.

but neither thrive as well as in southern California. As a breakfast dish the half ripe almond is very delicious. As a matter of course, we found the fig in great variety and of the best flavor. The business of drying and putting up this delicious fruit for market is growing prominent in the fruit business. Immediately about the house I observed several orange trees, which though small in stature, were ladened with fine large oranges. These trees were planted to test the climate. The reader will scarcely credit the fact that the orange flourishes tolerably in a latitude twenty miles north of Richmond, Virginia. It is so, however. The vineyard covered ten or more acres of ground, but that was no new thing to me, as I had formerly lived in the midst of vineyards at Los Angeles; but as the reader may not have seen them, I will say that in California they plant about one thousand vines to the acre, which planting consists in sticking a cutting in a hole made with a crowbar at the intersection of six-by-seven checks. The earth is settled around the cuttings by gradually filling with water from a watering-pot. The first year the ground is kept clean by plowing and hoeing. The second year a small stake, say two feet long and an inch square, is set beside each vine, which is tied and trained upright. The third year some attention is also given to training, but after that the vine takes care of itself, as the system of pruning renders the vine stocky and capable of the task of holding itself up. The system is to annually in the fall or winter, cut back all laterals to within a few buds of the main stem. For several years past the great furore has been for raisin vineyards and tropical fruits. At the mission of San Fernando, in Los Angeles county, are two fine orchards of olives, covering an area of between ten and twenty acres, and which used to rent for ten thousand dollars per annum, in former years. The lessees were Frenchmen, who pickled the olives, and made oil. A person who has never eaten fresh olive oil cannot imagine how nice it is. The rancid stuff sold in the groceries is no more to be compared to the fresh article than is old butter to the new on the farm. At the mission of San Gabriel. in the same county, are many noble trees, and I hear that olive planting is getting to be very general in the southern counties.

PRODUCTIONS.

If you are at all fearful that I have a purpose to inflict on you statements in reference to mammoth pumpkins, huge gourds and extraordinary turnips and cabbages, possess yourself, for I mean to do nothing of the kind. I know that their vegetables in California are the biggest you will find in the world, but our inquiry just now must not take so wide a range as the details of pumpkin growing. Any party having a thought about moving should ascertain whether the country he thinks of going to is better or more prosperous than the one he is in—the question of health, society, school privileges and morals being settled. I said in a previous paper that the capacity of production should measure the value of a State as well as a farm, and then instanced the extraordinary exports of California, per capita, to show her wonderful capacity. Let us pursue the investigation by another channel, to-wit; By showing the amount produced by each person engaged in agriculture in various States, which information we procure from the census reports of the United States, for 1870. In the States as a whole the average productive force of those engaged in agriculture was $404; in Illinois, $579; in Oregon, $542; in Arkansas, $372; in Tennessee, $324; in Mississippi, $377 50; and California, $1041. To illustrate: The value of argricultural products in Mississippi was $73,137,953; and the number of people employed was 193,725. By dividing the dollars by the persons engaged in producing them you will have the average of what each person produced. You will observe that in California the productive force of the agriculturist is more than one thousand dollars; here less than four hundred. To be accurate, one man produces in California as much as does three men with us. To explain this it will be necessary to go somewhat into details. The principal crops of the country are wheat and barley, the sowing of which commences with the first soaking rains of November, and contiues on through the winter until February. This extends the planting season over a period of four months, during half of which it will be rainy, or the ground will be too wet to admit of plowing. Taking out Sundays, they have from fifty to sixty working days, in which to get in their crops. Generally, they break up with heavy gang turning-plows, two or three plows to the gang; to which either four or six horses are hitched. At the end of the seeding in February the labor of the plowman also ends, and the farmer puts away his tools and employs himself in fencing, building, hauling and jobbing until the harvest, which opens in July and closes in September. I mean by this that after the wheat ripens it may stand for a long period without injury, as there is no rain or moisture. They do not cut it with the ordinary reaper, but use a HEADER, which is a reaper elevated to cut only a few inches of straw below the head, and is pushed ahead of the team, as is also a wagon, which is fastened beside the header, and receives the grain as it is cut, instead of dropping it on the ground. One or two teams are constantly plying between the header and the stack, bringing empty wagons one way and carrying full ones the other. Two immense oval stacks are made, between which the stem-thresher is placed, with its boiler a hundred or more yards away, Twenty-five bushels to the acre is an average crop, though you will scarcely get any one to acknowledge so small a yield. This is the most perfect system of machine farming in the world, and coupled with the capacity of the soil to produce twenty-five bushels to the acre, is the reason why one man produces so much wealth. As a proof that this position is right I ascertain from the census report the average quantity of land cultivated by each person engaged in agriculture in several States: In the States, as a whole, the number of acres is 32 to the hand employed; in Alabama, 17 acres; in Arkansas, 18 acres; in Georgia, 20 acres; in Illinois, 51 acres; in Indiana, 38 acres; in Mississippi, 21 acres; in Missouri, 35 acres; in Oregon, 85 acres; in Tennessee, 26 acres; in Texas, 18 acres; and in California, 129 acres. To illustrate: California had in cultivation 6,218,133 acres, worked by 46,863 people.

You will see that the Californian takes care of more than seven times as many acres as the Alabamian. I beg to anticipate a question which I am sure will arise in the mind of the practical farmer —do the farmers make money there? They do, and they do not, as elsewhere. Those, who are pretty sure to make money, are they who do their own work, assisted by their children, and some hired force in the pinching times. To this class no country offers so many inducements. The land yields the bounteous crops I have mentioned, and for the small amount of labor described. The climate, which is so favorable to man, is also kind to beast and bird; and the farmer, with but little care and expenditure, finds himself in a short time possessed of fine herds and great stocks of poultry, which under a good system of farming is the source from whence much of the profits of the business must arise. I have known one person to raise, without any very special effort, six hundred turkeys in a season, to say nothing of chickens and ducks. Those who are not sure to make money, are they who plant very large areas on speculation. I understand that one firm have under a single enclosure thirty thousand acres of wheat. With an unfavorable season and low prices, these parties would meet with loss; but in a season like the present one, when the yield will be maximum and the price good, the profits will be something enormous. As a matter of course every sensible man knows that farming is a BUSINESS, and an intricate one, and depends for its success very much upon the training and habits of the person conducting it. In the absence of economy, prudence, industry and MANAGEMENT the best farm in the world will entail loss upon its possessor; whilst the presence of these qualities in the proprietor will make a desert blossom. What I mean to say is this: If a man can make money here at farming it is likely he would make a great deal more out there; but he will not make it there any more than here, without crosses and troubles—that country is not called paradise. As everybody should know, the great majority of the people of the State are engaged in mining, commerce and manufactures, which gives the minority of agriculturists the advantage of a sure market at remunerative prices for those small things about the farm, such as eggs, butter and poultry, which go to pay small expenses and swell the profits of the business.

THE PRICE OF LIVING---RENTS---BUSINESS CHANCES---TRANSPORTATION.

I propose now to answer some practical questions. First, is living expensive? Second, are rents high? Third, is it expensive to build? Fourth, what are the chances for engaging in mercantile pursuits, requiring small capital? and some other minor matters. I am going to adopt a novel mode of reply, to-wit: Reprint bona fide advertisements from San Francisco newspapers. First, in regard to living, I will state in general terms that from my own knowledge living is cheaper there than elsewhere in the civilized world. In San Francisco you can get more food, and better food, for your money than in any eastern city, or in Paris. At the best restaurants you get a superb dinner for a dollar, which will cost two and a half times that sum in St. Louis, New York, New Orleans or Paris. If you are not able to live so sumptuously you can get for the same dollar six meals; for so I find it advertised. But the majority of persons will be better satisfied with a list of prices of staple articles than general statements. I make up such a list from the "Alta" of February 26th: Flour, extra, \$6 87½; superfine, \$5@5 25. These are the only grades they have. Potatoes, \$1 85@2 per 100 lbs; corn, \$1 65 per 100 lbs; onions, \$2 75 per 100 lbs. Sugar, fine crushed Cuba and dry granulated, 12c; powdered, 12½c; yellow C, 10½c; Hawaiian grocery grades, 8½@10c; California hams, 12@13c; California bacon, 11c. Lard, 11@12c. Tea, 45@65c. Coffee, 26@30c. Fresh beef, 6@9c. For information concerning rents, I reproduce the following: "For \$45, house of nine rooms and bath." "A beautiful new house of nine rooms, rent only \$50 per month." "A house of five rooms, with water, rent only \$25." "A neat cottage on line of street railroad, four rooms and kitchen, stable and good yard, rent \$25." "Front room, pleasant and sunny, \$7." These extracts I make from a column of similar advertisements, as sufficient to give an idea of the matter.

It is about as expensive to build there as here, and it may be somewhat higher, as materials are a shade dearer, and mechanics get—masons, five dollars, per day, and carpenters four dollars. The chances for engaging in mercantile business I answer with more advertisements:

\$3000 TO \$4000.—FOR SALE—A gentlemen's furnishing store on the leading retail street in the city; will be sold by inventory.

\$1000 FOR SALE—A wood and coal yard, two horses, wagons, horse power, and trade of \$50 to \$75 per day; location central.

\$8000 THE GREATEST BARGAIN OFFERED THIS YEAR—Well established drugstore business on Montgomery street, doing a business of \$40,000 a year.

\$275 CIGAR STAND FOR SALE—Splendid central locality; only a few steps from Montgomery street and the principal hotels and places of amusement.

$1200. A RARE BUSINESS OPENING—For sale an old-established corner store, dealing in foreign and domestic Fruits, Nuts, etc., wholesale and retail.

$1150. BUTCHER SHOP FOR SALE—Centrally located; two horses, wagons, good lease and splendid custom; a bargain.

FOR SALE CHEAP—One half interest in a good paying produce store in Oakland; a good chance to make money.

$750. COMMISSION BUSINESS FOR SALE—An old-established down town produce commission house, doing a large trade.

A NEW DRUG STORE FOR SALE—Nicely and well arranged at low rate, on account of departure.

DRUG STORE FOR SALE—In a good location; half cash, balance on time; a good chance for a young man.

CORNER GROCERY BUSINESS FOR SALE—One of the oldest and best stands in the northern portion of the city, doing a large grocery trade.

OYSTER PALACE FOR SALE, known as the finest establishment in the city or on the Pacific coast, and excelled but by few in any part of the world.

Although no question has been asked on the subject, I insert an advertisement in regard to the price of labor.

WANTED—Chambermaid for Country Hotel, $30; girls for all kinds of work; 8 laborers, $30 and found.

This is the average in the State; which is about fifty per cent. higher than Eastern States. I am asked every day what will be the chance to get improved farms and the price of lands under fence and ready for operations? For the benefit of such I append a few more advertisements:

FARM FOR SALE—A choice farm of 168 acres upon Walnut Creek, 15 miles from Oakland. There is a fine orchard of choice fruit, living water, and good fences; house of nine rooms and barn 40x44 feet. The soil is a rich black loam, and about one half of it bottom land suitable for alfalfa. There is no better farm in the State. Price, $7,500. 160 acres, between Saratoga and Los Gatos. A good place and very cheap at $8000; $1000, cash, balance at 10 per cent. per annum; title perfect. 160 acres in the warm belt, near Lexington, 3000 vines, 10 years old; a part heavy redwood timber, $3000. 198½ acres near Eighteen-Mile House; house, barn, small vineyard; four fields; $8500; all valley land.

FOR SALE—A fine farm of 250 acres on Russian river, 3½ miles from Cloverdale; 180 acres of it is rich bottom land. It is well watered and has plenty of wood; improvements good. Price, $10,000—one half cash, balance on mortgage.

FOR SALE—A Chicken Ranch of 22 acres; well fenced in; two fields; small house and barn and plenty of fire wood; situated in Sonoma county. Price, $500. 118 Acres, between Los Gatos and Saratoga; a good place at $30 per acre. 108 acres near the above, for $3500. 3000 acres first-class wheat land to lease in quantities to suit, on very liberal terms, with privilege of purchase next year, to parties able to farm on their own account. 200 acres near Gilroy, 20,000 bearing vines; 800 choice fruit trees, 10 years old; running water on the premises. Price, $12,000. 320 acres in the foothills, 200 of which is tillable. Good house and barn; also orchard and vineyard; well wooded and watered. Price, $10,000.

Most of the above places are desirable on acount of their proximity to the highways leading to San Francisco. They are in counties having excellent schools and good society. Possibly lands more remote from market and civilization, and unimproved, could be got for much less; but it is unquestionably cheaper in the end to buy improved land in the midst of society than go to the wilds. I will answer one more question and close. What about transportation? A letter from the general passenger and ticket agent of the Union Pacific road, dated Omaha, March 3, '74, gives me all the information I have on that suject. " Our emigrant train leaves here daily at 4:45 in the evening, and goes through to San Francisco in about nine days. Our express leaves at 11:30 in the morning, daily, and goes through in four days and a half. The only concession we are allowed to make to large parties is to give them the exclusive use of a car through, where there is a sufficient number in the party to fill the car. Our emigrant cars are regular coaches, similar to those run on the passenger trains, with the exception that the seats are not generally cushioned. We have made a rate of sixty dollars from New Orleans to San Francisco for the benefit of Southern emigrant travel. Our rate from here is fifty dollars emigrant, and one hundred dollars first-class."

A SLIGHT CONTROVERSY.

The foregoing matter was printed in numbers in the Memphis Appeal, which moved one of its readers to indite the following, which appeared in that journal on the 24th of March, 1874:

CAPTAIN GIFT AND CALIFORNIA.

Editors Appeal—A subscriber would like to ask you and Captain Gift one or two questions to be answered to the public. First —Are you PAID for printing Captain Gifts letters upon California? If not, then upon what idea are you doing it? Is it with the hope of getting as many white men as can raise the necessary amount of money to pay their way, to leave this country and go to California? If this is your object and Captain Gift's intention, then it is all right and proper. Is Captain Gift the agent of any land company, or interested in any speculation in California that he is laboring so hard to induce our people to become dissatisfied with home and go to California? When does Captain Gift start to California to remain? Why does he still come back to this poor place and quit a country of such splendid industry? Is the Appeal working for the benefit of the people here or for California interest? All these letters seem directly intended to drum up emigrants. Why is the Appeal and Captain Gift engaged in such an enterprise? Please answer and satisfy your subscribers, and oblige one who will stay and abide the fate of Memphis. G. A. G.

[So far as the Appeal is concerned, we can only say to our correspondent that we have but one idea in giving Captain Gift the space he has so far satisfactorily filled in several successive issues of the Appeal, and that is, that our readers might become as intelligent as he is in regard to one of the greatest of the States of the Union. As to whether the Appeal is working in the interests of

Memphis, we think our correspondent can see for himself by a more careful reading of our paper than his question would imply. For the rest, we will let Captain Gift speak for himself, as no doubt he will do, and to the point.—Eds. Appeal.]

TO THE POINT.

Editors Appeal—Show me a man who has never traveled, or who has never read after others who have, and I will show you a narrow-minded, bigot, who will be ready to assert that his chills and fevers are better than any other man's chills and fevers; that his hills are the highest, his rivers the deepest, his institutions the best, and that one of his men can whip three yankees! If he happens to be a tradesman, his capacity is equal to putting sand in the sugar, water in the whisky (which latter I abhor), and gravel in the coffee. This by way of an exordium, before I turn my attention to the party who wishes me to rise and explain my motives for writing some articles recently published in the "Appeal." Am I the agent of a land company? No; nor am I interested in any speculation in California. When do I start to California to remain? Whenever it suits my convenience. Why did I come back to this poor country and quit a country of such splendid industry? In 1861 there was a "misunderstanding" in this "poor country," which I came to take a hand in; that is one answer; another and more appropriate one for the case would be that it is none of your business. This is about all the case demands in itself, but the motive which prompted the party to indite his queries demands a scourging. Has it come to the point that no man can do a thing without a covert purpose to deceive and circumvent? Is money-getting the only object of life? and is fraud the great fine art of the day? Such this person surely believes. Simply because I happen to possess a little knowledge of a far-off country, and also possess the art of telling what I know on paper, and a sufficiency of vanity to believe that I tell it in a way that gives pleasure to my readers, I am jibbetted as a land-speculator, who would ruin the "poor country" I traveled three thousand miles to peril my life for. Our poor city has many things to contend with—epidemics, money-panic, effects of war; but nothing weighs so heavily about her neck as that bigotry which shuts itself in its terrapin-shell, and says, "I am above being taught."

Memphis, March 24, 1874. GEORGE W. GIFT.

The following rejoinder, though signed "Tennessee," and affecting non-acquaintance, was certainly written by the person who wrote the first letter. No city having but fifty thousand people could produce two such persons:

Editors Appeal—I don't know who that "party" is who asked Mr. Gift to rise and explain his California letters, but I do know the readers of the "Appeal" have been putting just such queries one to another as that "party" put to Mr. Gift. It is no use to deny the fact that the tendency of those letters is greatly to the injury of Memphis. They have the appearance and the effect of drumming up emigrants for California. It was the most natural supposition in the world that the drumming was done in the interest of California landowners, and that California gold gave that splendid glow to California pictures. Coming, as these letters do, just after the depressing epidemic, and in the midst of the money tightness, it unsettles and dissatisfies people's minds with their own country. They read of an impossible paradise on earth, and long to reach it. Few people are reasoning enough to know that such pictures of far-off lands are like landscapes, mellowed and beautiful by moonlight—all the hard and rugged realities are softened and toned down. I know hard-working mechanics in this city, so bedazzled by Mr. Gift's pictures of California they will suffer a bitter disappointment when, after reaching the paradise, they find comforts and luxuries there must be won by hard labor and self-denial, just as they can be won even in Tennessee, by hard labor and self-denial. It is the working classes of limited education most influenced and taken in by such splendid stories of distant lands. Why should Mr. Gift be so nettled at the suggestion that all is not gold that glitters in his California pictures?"

The intelligent reader will observe that I have made no issue against any country or in favor of any. I have recited facts which will deceive no one. I have said that the country was healthy, the climate genial and the productions extraordinary. I have said that the mechanics and working people of San Francisco have forty-odd millions in the Savings Banks; that they get more for their labor, and pay less for what they buy than elsewhere. I have NOT said that people can make a living there without work; on the contrary, I have said that to succeed there, as elsewhere, a man must work, and work hard. And it was the climate which permits so much work that I extolled. I will say in answer to the "drumming up" inuendo, that the sentiment which attributes a sinister motive to every good action of a public nature is beneath contempt. It is of that class of ethics which cheats and calls it "business"; which says put money in your purse—no matter how, but put it there—its "business."

APPENDIX.

SANTA ROSA.

The Wheeling Intelligencer first printed the following extract from a letter directed to a gentleman of Massillon, Ohio, from an old resident of Starke county, in that State, recently removed to California.

SANTA ROSA, January 5, 1873.—Yours of the 26th ult. came last evening. Our mails always reach us about 6 P. M., except Sunday, when we get none. A great change has taken place in everything in the twenty years that I have been away from this coast. Then letters came at uncertain intervals, never less than a month, and generally cost seventy-five cents each, including delivering cost. Now we can communicate in LESS THAN NO TIME. If you were to telegraph at noon to-day I would get it about 9 A. M.—that is, three hours before it left Massillon.

We had a snow last month five or six inches, but people who have been here twenty years say it never occurred before, and perhaps never will again. It snows enough here to see it nearly every winter, but people are rarely able to gather enough, in winter, to make a snow-ball. It will be better weather in Stark county than usual if you do not have more snow in May than we have in a year. Stark county had but THREE pleasant days between October 1st, 1872, and January 1st, 1873.

Lands do not rate as high here as with you, not nearly, and the soil is ten times better. There has been a great deal sold since I came to Santa Rosa in November. You can buy land as near to our court house as the gas works at Massillon to the canal bridge, for $300 per acre. On it you can raise sixty bushels of wheat per acre, if farmed as it is usually in Stark county, and sell the products a quarter of a mile from the field it was raised on for $2 20 per 100 pounds. You can raise vegetables or fruit and realize a much larger yield. The very best land in the world, perhaps one and a half miles from the court house, has been sold since I came here for $150 per acre—land that has been in wheat for twenty consecutive years, never manured, which last year produced thirty-eight bushels per acre, which has produced eighty bushels per acre, and which, it is said, has raised, without fertilizing and but illy farmed, enough wheat to cover the tract to the depth of six inches.

There is a farm for sale, two miles east of town, with good buildings, good orchard and good fences, for $100 per acre, all best bottom land, with a soil ten feet deep. Another farm, same distance from town, with the best orchard in the county, a large vineyard, half bottom and half hill, is offered for $60 per acre. A lovely place to live, where you can have any kind of fruit, flowers, shade trees, and a climate unsurpassed. No ague, no musquitoes, no typhoid, no bad roads, no high taxes, no drouth, no lightning, scenery beautiful and nature bountiful.

We moved into our house yesterday. It is new, nicely painted inside and out, has a large bay window at which I am writing to you now, with shutters inside and out; nearly eight lots well filled with choice fruit trees and grape vines. An old gentleman, whose acquaintance I have made, says his vineyard will yield him $30 per acre, net profit, after deducting cost of labor, taxes, &c.

I received a letter from a young lady in Massillon, some time since, which I promptly answered and advised herself and father to come. I think they could enjoy life here better than there—the climate is so much better, the people are much more like him here, many old DIMOCRATIC buffers, as grey AND FOSSILIFEROUS as himself, who were of the olden time, when DIMOCRATS were powerful and honest.

Living here is cheap, if one wishes to economize. A property can be bought for from $600 up, to suit the views and circumstances of parties, and then live, if he will, for a very small outlay. Taxes $1 20 on the $100; furniture, clothing, groceries, &c., about the same as in Massillon.

I do not feel as though I had wasted my years of manhood in Stark county. I had many friends there and spent many pleasant hours, the memory of which still lives and sweeps over the soul like the music of old songs. But the climate is inhospitable. While youth and health are ours we can battle with and live through it, but now, when our locks no longer glitter with the light of youth, but are dimmed by its decay, it is well to seek a calmer retreat, a more peaceful asylum, and as the sunset of life has come, we can find in the sunset of our continent a clime where the sun still lingers, where the breezes are soft, warm and calm as the breath of an infant. By stopping awhile on our journey of life, in the beautiful vale of Santa Rosa, we shall be better fitted for that happier home which is but a little ways above the mountains, where the fields are but little greener, and where we can be only a little happier.

It is the best country in our world, and the people will soon learn and acknowledge it. Stark county don't know what good fruit is. No one here keeps an orchard to present him, at harvest, with a beggarly account of empty branches. Almost anything can be raised here.

We have fleas, wicked fleas, whom every man pursueth but catcheth not. We have rains, of course, but we need them, and could not get along without them. It is but three days since the rains ceased, long heavy rains, yet to-day the roads are good and dry.

The water does not stand on the surface, but sinks in and stays for future use. Never dries up, never dries out.

The coldest hour last month was 32 deg. above zero, the warmest was 60 deg. above.

The one single drawback to the situation I have accepted is the total absence of familiar and fond friends.

SHEEP RAISING.

A sheep farmer from Santa Barbara writes to Harrison G. Otis, of Washington, as follows:

"Your first question:

What, all things considered, is the most profitable breed of sheep to grow on the Pacific coast?

While I consider all kinds profitable to our State, the Merino, and different grades of Merino seem best adapted for a large business.

First—Because the Merino is more gregarious, and herds better in bands; and,

Secondly—The Merino, furnishing to the world, as it does, the great staple for the clothing wools, fills a large place in the economy of living. If this class of wool was greatly diminished, we should soon find out how small a space was occupied by the combing or long wools of the world.

I have no way of finding out, to anything like a certainty, what is the proportion of strictly clothing wool to the combing, but should think it was SEVEN to THREE, and, perhaps, even EIGHT to TWO.

Of course, you know that we have not enough of either. There is no danger of over-production in any kind of wool, nor doubt of continued profit in sheep husbandry for all time.

Your second question:

What is the average annual increase of sheep under fair conditions?

On a small scale, with Merinos, ONE HUNDRED per cent.; on a large scale, I count eighty per cent. good, and business must be well attended to to make that.

Your third question:

What is the average annual yield of wool from each animal?

Our flocks—meaning mine and partner's—will not vary much from six (6) pounds once a year.

We do not shear old sheep over one year but once a year. Lambs are usually shorn twice, as they keep in better condition during our winters here. In like climates, I think it is a good plan everywhere.

Fourth question:

What are the prices of the various grades of wool in your nearest market?

Prices vary, of course, according to demand—sometimes above and sometimes below what I should call our average for the past, and what it is likely to be for the future; say fifteen (15) cents for Fall, and twenty-five (25) cents for our Spring clip.

Fifth question:

What is the annual percentage of losses in your flocks when only one epidemic is prevailing?

Very hard to answer. I should say, from all causes, from five to ten (5 to 10) per cent. We have had no epidemics, so far, on this coast. Our great enemies have been, and continue to be, SCAB and WOLVES. The cost of handling one band of sheep of two thousand (2,000) for one year, and raising the lambs would, I should say, exclusive of forage, be not far from twelve hundred ($1,200) dollars.

We consider that number here a fair one for one band of sheep herded by one man, till the lambing season, when more help is required.

INTERESTING STATISTICS.

The following summary of the trade and productions of California during the year 1873, gives at a glance a comprehensive idea of the great industries and productive resources of that State. It is from the San Francisco Commercial Herald:

Wheat product in 1873, 25,000,000 bushels.
Wheat and flour exports in 1873, 10,650,000 centals.
Gold and silver yield in 1873, $82,000,000.
Gold and silver exports for 17 years, $675,000,000.
Wheat and flour exports in 17 years, 53,650,000 centals.
Coinage of San Francisco Mint in 1873, $22,075,400.
Coinage of Mint from 1854 to December 31, 1873, $350,000,000.
Merchandise export values by sea, 1873, $31,160,000.
Foreign import values for 1873, $33,560,000.
Mining stock sales in 1873, $146,400,000.
Lumber receipts in 1873, 203,330,000 feet.
Domestic coals received in 14 years, 1,700,000 tons.
Wool clip of 1873, 36,000,000 pounds.
Wine product of 1873, 2,500,000 gallons.
Deposits in California savings banks, $55,000,000.
Banking capital of the State, $100,000,000 in gold.

From "All About California."]

Cost of Houses, Stock, Trees, Etc.

For the information and guidance of those who wish to know what it will cost to establish themselves here, we append the present market prices to the following articles:

A single-room house can be built at a cost of	$100 00
A two-room house with kitchen attached at a cost of	200 00
Barn and corral at cost of	100 00
Mexican unbroken horses will cost each	25 00
Good American horses will cost each	$50 to 100 00
Good milch cows will cost each	30 to 50 00
Single plows,	20 to 30 00
Gang Plows, four plows in each gang	60 to 65 00
Harness per set	20 00
Wagons	90 to 250 00
Hogs	8 to 12 00
Sheep	2 50 to 3 50
Osage Orange hedge plants per 1000	5 00
Grape cuttings per 1000	10 00
Blue gum trees per 100	5 00
Mulberry trees for silk per 100	6 00
Apple trees per 100	12 00
Pear trees per 100	25 00
Peach trees per 100	12 50
Plum trees per 100	25 00
Cherry trees per 100	25 00
Nectarine trees per 100	25 00
Persimmon trees per 100	35 00
Pomegranate trees per 100	35 00
Orange trees per 100	60 00
Lemon trees per 100	60 00
Lime trees per 100	60 00
Fig trees per 100	35 00
Olive trees	30 00
Almond trees per 100	20 00
English Walnut trees per 100	15 00
Strawberry plants per 100	1 50

The above prices are for trees two to five feet high and one to three years old. If grown from the seed, instead of buying from the nurseryman and paying him an immense profit, they could be produced at a fraction of the above prices.

It will be seen from the above list that a person desiring to secure a farm of 160 acres, and commence on an economical basis, would require for 160 acres of land, at $10 per acre, $1600:

One-third payable down	$533 33
House	100 00
Barn and corral	100 00
Two horses	50 00
One set harness	20 00
One Wagon	125 00
One Plow	25 00
Household utensils, seed, groceries, and cash on hand	246 67
Total	$1,200 00

A California Ranch.

Dr. Glenn, of Colusa county, owns a ranch which contains nearly 45,000 acres. It embraces a frontage of eighteen miles on the Sacramento river and extends back about five miles. It is inclosed and divided by one hundred and forty miles of fencing. One tenant—G. W. Hoag—rents and cultivates about 10,000 acres of land, and the Gupton Brothers cultivate an equal portion. This year the

Gupton Brothers sold 41,000 sacks of wheat; G. W. Hoag 45,000 sacks. Some 15,000 acres are rented out to a number of farmers who work on a smaller scale. At the present time farming operations are going on on this ranch at a lively rate, as the work of harvesting is progressing rapidly. Hoag is engaged in cutting seven thousand acres of wheat and barley. The crop will this year yield about twenty bushels per acre of wheat. In favorable seasons the yield has been about thirty-five bushels. The yield of barley is considerably larger. The total crop will amount to nearly 180,000 bushels. He is threshing his grain with one of Case's 48-inch cylinder threshing machines, which is run by a twenty-horse power steam engine. To supply this machine requires six large-sized headers and eighteen header wagons, all of which require the labor of one hundred and ten horses and fifty men. The machine has threshed five sacks of barley a minute, at which rate it has run for an hour and a half in succession. It has also threshed forty-two sacks of wheat in seven minutes. It will require about six weeks to thresh the entire crop. These are the operations of Hoag alone. Gupton Brothers have an equally large crop, and are driving business on about the same style. The smaller tenants are equally well employed.

Table of Temperature in Stanulaus County.

Months.	Average Tem'ature. 7 A. M.	2 P. M.	9 P. M.	M'thly Mean.	High Tem.	Low Tem
January, 1872	40.20	52.30	46.15	49.21	61	27
February	44.68	59.11	49.69	51.16	67	35
March	46.16	63 60	50.40	53.38	70	36
April	48.21	66.40	50.80	55.13	77	36
May	56.45	78.39	58.65	64.49	90	40
June	64.57	86.86	65.25	72.23	110	52
July	68.23	92.48	71.15	77.28	104	61
August	69.68	91.72	71.95	77.78	110	59
September	63.59	88.25	69.37	73.74	101	43
October	50.57	77.19	57.25	61.67	94	38
November	39.68	63.56	47.46	50.21	72	23
December	36.74	56.77	41.57	45.02	63	10
Annual	52.39	73.04	56.64	60.69	110	10

The following table shows the mean temperature at San Jose for the year ending May 31st, 1851. The record was kept by Jackson Lewis, and may be relied on as accurate. We have no later record than this. It is, however, a fair sample of every year:

Month.	Deg. 6 A. M.	Deg. 12:30 P. M.	Deg. 6 P. M.
June,	52:40	77:03	60:40
July,	55:32	81:71	64:84
August,	53:16	83:74	64:87
September,	55:63	79:17	65:10
October,	46:48	74:68	63:06
November,	34:40	59:77	52:30
December,	36:61	53:68	45:26
January,	36:68	54:42	48:00
February,	38:93	58:32	48:61
March,	39:99	62:58	51:29
April,	50:37	69:23	54:00
May,	48:26	69:90	54:97

THE "RESOURCES OF CALIFORNIA," published monthly, by John P. H. Wentworth & Co., corner of Sacramento and Leidesdorff streets, San Francisco, at $2 per annum, is the best and most reliable paper that intending immigrants and others can subscribe to.

From "The Santa Clara Valley."]

Sundry Questions Answered.

A gentleman in Illinois writes to inquire what kind of weather we have had during the past winter (1872–73), and whether there is an opening in San Jose for a homeopathic physician.

As to the first question we answer:—Our first rain—barely sufficient to lay the dust thoroughly, and lasting only a part of one day and night—came the latter part of November. Then followed a month of delightful weather, of clear days, warm and pleasant, and occasionally a frosty night. The frost was unusually severe, but not enough to injure orange trees in the open air. The latter part of December we had our first heavy rains, continuing at intervals for four or five days, thoroughly saturating the soil, and leaving it in the best possible condition for cultivation. The entire month of January was a general seeding time with our farmers. The roads became smooth and firm, and the weather was truly delightful. Veggatation came forward rapidly. Hill and vale were soon clothed in verdure. February came in with plentiful showers, abundant for all needed purposes. And now, on the 12th of February, the young grain is up, some of it from six to eight inches, and completely covering the ground. Young potatoes are up eight inches high, and growing vigorously. Almond trees are beginning to shed their blossoms. In fact, we may regard the unpleasant part of our winter as now over. The balance will consist of occasional showers, fruit orchards white and fragrant with blossoms, days of charming sunshine, new vegetables of all kinds, and hundreds of acres of strawberries.

Second, as to our supply of homeopathy physicians. San Jose has two of this kind, who we believe have a fair practice. As this valley is free from malarial fevers of all kinds, and the amount of sickness as compared with our population is proportionately small, we can't say what the chance of success would be for another physician of any school. As a large number of invalids come here from other sections of the country, seeking health and homes, we shall doubtless always find employment for good physicians.

A correspondent writes from Philadelphia to inquire the cost of living, and whether he could support a wife and three young children on an income of $1,200 a year. We answer as follows:

Good board can be had here in private houses all the way from $5 to $10 per week. A cheaper way to live, however, with a family would be to keep house. You could rent a neat little cottage, large enough for your family, for $15 a month. Provisions of all kinds are reasonably low—flour from $5 to $6 per barrel; potatoes one cent to a cent and a half a pound; groceries as cheap as in Philadelphia; fuel some higher—say $8 to $10 a cord for wood. You could support a wife and three young children on $1,200 a year comfortably—in fact, could enjoy twice the comforts (taking into account our incomparable climate), that you can in Philadelphia on the same money.

Another correspondent, a cabinet maker in a village in Wisconsin, says he is doing well where he is, but can't stand the climate. He wants advice as to the opportunities for engaging in that business here; also wants to know something about our lumber for building purposes, and woods for the manufacture of furniture. We answer briefly as follows: We never like to assume the responsibility of advising any one who is "doing a good business" in any part of the country to "pull up stakes" and come to California. Our object is to present facts, from which the reader must draw his own conclusions, and act wholly upon his own volition. The writer has resided in this city for the last twelve years. During that period the place has grown from a population of 3,000 to 12,000, and is steadily increasing at the rate of about 2,000 a year. To accommodate such an increase of population, of course much work for carpenters is required. The regular price for carpenter work is $4 per day. Our lumber is mostly redwood, which sells for from $28 to $35 per M. It is excellent for building purposes—very durable and easy to work. Most of our furniture is imported from the East, in partly finished condition, and put up here; although the manufacture from California woods is an industry that is rapidly growing in importance. Our laurel is more beautiful than mahogany for cabinet work, and for chair work there is no wood superior to our oak.

From Resources of California.]

Dividends by Local Corporations for 1873.

The dividends paid by local corporations for the past year compare as follows with the previous year:

	1872.	1873.
Bank of California	$600,000	$600,000
First National Gold Bank	97,500	187,500
Merchants' Exchange Bank	38,970	70,970
National Gold Bank & Trust Co.	98,125	130,000
San Francisco Gaslight Co	345,000	410,000
Spring Valley Water Co	480,000	480,000
California Theatre Company	30,000	30,000
Eastport Coos Bay Coal Co	22,500	10,000
Giant Powder Company	108,000	108,000
Merchants' Exchange Association	12,000	12,000
North Beach & Mission R. R	15,000	55,000
Pioneer Land and Loan Association	16,530	13,920
Belcher Mining Company	2,184,000	6,762,000
Cederberg Mining Company	36,000	24,000
Consolidated Amador Mining Co	....	150,000
Crown Point Mining Company	1,860,000	5,100,000
Eureka Mining Company	40,000	300,000
Meadow Valley Mining Company	360,000	180,000
Monitor Belmont Mining Company	......	75,000
Raymond & Ely Mining Company	2,070,000	300,000
Totals	$8,403,625	$14,998,390
Other incorporations	4,017,849	5,063,258
Totals	$12,421,474	20,061,648

From the Resources of California.]

California as a Home for Southern People.

Mr. Editor:—I desire, through your widely circulated journal, to make known to the people of the Southern States, the inducements and advantages which are offered by California, as a home for such of them as wish to emigrate. I know from actual experience the feelings, wants and aspirations of thousands of the Southern people, whose hopes and fortunes have been blasted by the results of the late calamitous civil war; for I have suffered with them and know their sad experiences. The South is no longer a home, in any proper sense, to many of these noble, excellent people; and yet accustomed to the mild climate and grateful soil of their own sunny land, they know not where to go to better ther condition. To all that class,, comprising some of the best people in the world, industrious, frugal, honorable and intelligent, I would address the following considerations:

After pretty extensive observation and several years' experience on this coast, I am thoroughly persuaded that California is the country to which the Southern immigrant should come. In the first place, it is worthy of special note that, owing to peculiar causes, the plane of social life is more elevated and refined in California than it used to be found in the early history of most of the Western States. The energetic young men who migrated to this region from eighteen to twenty-five years ago, came from old communities—including the Western States as comparatively such—where educational and religious institutions had been long established, and where they had enjoyed all the advantages of moral and intellectual culture; and though at first, in the comparative absence of the gentler sex, they formed a crude and somewhat wild community, there was a substratum of moral worth and energy in their characters, which has since crowded great achievements in social, moral and physical life; into a few fleeting years. The history of no one of the States east of the Rocky Mountains, furnishes any parallel to the extraordinary progress made by California within the comparatively few years since her settlement began. This progress is owing not only to the character of her early immigrants, but also, in large measure, to the physical characteristics of the country itself. The country which was found so rich in gold, and which made men hasten to its occupation, has proved even more rich in other still more important and permanent resources. And so, from this combination of causes, all acting with unusual energy, the Southern man will find here a condition of society which will meet all his social wants, both for himself and his family. I speak confidently on this point, because I am justified by facts, and because I understand the Southern mind and heart. Let me now enter into particulars.

The climate of California—a subject upon which the Southern man is especially solicitous—is in no respect inferior to that of the Southern States, while in some peculiarities it is superior. It may confidently be asserted that, while in a large portion of the State we have all the mildness of the Gulf States, there is an absence of liability to those diseases which originate in miasmatic exhalations. The climate is mild without being enervating. California is, emphatically, a healthy State, excelling in this respect the States of the South. On this point I am confident. Here, also, in large sections of territory, may be cultivated with success, those remunerative productions which have been peculiar to the Southern States, cotton, tobacco, and semi-tropical fruits, while all varieties of esculent roots, with Indian corn, wheat, rye, oats, and barley, yield such a return for intelligent industry, as is, to the Eastern man, nothing less than wonderful. The same farm which produces cotton and tobacco, will also grow, side by side, all the roots, fruits, and cereals requisite to the most luxuriant table. Think of wheat in some instances yielding even as high as eighty bushels to the acre. And such wheat! clean, plump, and as bright as the gold of the mines. Rust is here almost unknown. I speak facts, though my southern friends may imagine I exaggerate. The wheat export of the State for the last year, was worth about twenty millions of dollars. Nothing, so far as my knowledge, either experimental or acquired, extends, can surpass in salubrity, geniality, and health-imparting vigor, the climate along this coast, extending inland as far as the country is fanned by the zephyrs of the sea, reaching even the foot-hills of the Sierra Nevada. And here it is proper to refer to wine-culture, which, though yet in its infancy, is destined to be—nay is now—an important industry. There is much to be learned in the preparation of this product to make California wine equal to the best French varieties, but experience and intelligent investigation will solve this problem. The area in this State where the wine grape may be cultivated, is quite equal to that of France, whose wine export alone returns to the vintners $65,000,000 per year, and which, added to the home consumption, surpasses in value the cotton crop of the South.

Although the State has a population, as is believed, of quite 700,000 souls, immense tracts of fine lands, situated within the belt above designated, are yet unoccupied, inviting the industry and enterprize of the immigrant who seeks a desirable home. Here is the place for the Southern man, whose social relations have been revolutionized, whose political elevation has been depressed, whose progress has been arrested.

The questions of climate, soil, production, and purchasable area being settled, the Southern man will naturally inquire: What about educational and religious institutions? for well I know that with the Southern people these are questions of vital concern. It might reasonably be presumed, as the current history of this State actually proves, that such a class of intelligent and energetic men, as those who first peopled this State, would, when called upon to establish, under the forms and sanctions of law, its political, social, and domestic institutions, be especially mindful of its welfare in these important elements. Accordingly we find that in liberality as regards the establishment of common schools, as well as educational institutions of the higher grade, no State in the Union surpasses, few indeed equal, all circumstances considered, the young State of California. This people never do anything by halves, or grudgingly. They think rapidly; they act promptly; they move, morally and physically, with celerity and power. Their ideas as displayed in art, in commerce, in agriculture, in the mechanic arts, in architecture, in physical and moral improvement, are comprehensive and grand. While other and older communities hesitate, consider and debate, these Californians comprehend with a rapidity almost intuitive, and their execution runs parallel with their intellectual conceptions. When they comprehend, they do not wait to hunt around for possible or imaginary obstructions; they go ahead. Herein lies the reason why they have accomplished so much in so short a space of time. And these qualities are exemplified in their educational and religious institutions. There are schools of science and colleges, in this State, already as well established and endowed, as some of the renowned institutions in New England, whose foundations were laid by the boasted Pilgrim Fathers or their immediate descendants. And, with a magnificence and grandeur of thought and action which should excite universal admiration, these institutions are made accessible to all, rich and poor alike.

And, as they move in educational matters, so do they act in reference to the institutions of religion. If they find a church is needed, in any locality, they go to work and build it. The happy consequence is that, all over the State, wherever there are communities sufficient to form a congregation, there are churches where God is worshiped by an earnest, cultivated, truth-loving people. Such is a brief picture of society here. I have chosen the style of rapidly grouping facts into generalities, rather than go into detail with particulars; for at last, this is the better way to convey comprehensive ideas. Let the statistician give facts and figures, which laborious patience only can comprehend and estimate; I choose rather to draw word-pictures, which are understood as soon as read.

To all the inviting advantages which I have thus sketched, there is but one serious drawback, so far as the resources of the State are concerned. Occasionally comes a season of drought, which, in some localities, cuts crops short. No country in the world is more productive when seasons are favorable, but the lack of moisture sometimes blasts the hopes of the husbandman. But, as might be expected, such a people are able to surmount even this disadvantage; and they are rapidly doing it. The mountains which skirt the State, as if to stimulate man's enterprize, draw ceaseless and inexhaustible supplies of rain and snow from the heavens, which supply never failing streams of pure water. These streams are being rapidly utilized for purposes of irrigation; so that the time is near at hand when the whole State will be thus steadily supplied with an unfailing resource against drouthy seasons. The works needed for this purpose cost something, to be sure; but experience proves both their practicability and profit; for it is found with a regular supply of water, the irrigating process enables the farmer to raise two, and and in some cases three crops in a season, where before he raised but one. These people will do what is found so abundantly to pay, depend upon that. Respectfully, A SOUTHERN IMMIGRANT.

The Occidental Hotel, San Francisco, is equal is every respect to the best houses in New York. It is located in the very center of the city, and is managed in the most admirable manner possible. Guests will lack for nothing at the Occidental, and will go away praising it.

[1854 or 1855]
see [illegible] Greenwood

The Gold Key Court or the Corruptions of a Majority of it.

We shall give in this first number of our Circular but a brief outline of some of the causes which are producing the overthrow of all the important decisions of the former Supreme Courts. In our next number we will give the details of these moving causes, and in addition will give many other motives with the facts and proofs of a more startling character.

After the nomination of Baldwin as a candidate for a seat on the bench of the Supreme Court of the State of California, one of his first acts was to enter into a contract with Treanor S Park, that he, Park, should purchase the real estate situated outside of the County of San Francisco which was formerly owned by the firm of Adams & Co., and which had been sold on judgments rendered in the Superior Court of the City of San Francisco, and which sales had been declared invalid by the Supreme Court, for the reason that the jurisdiction of the said Superior Court of San Francisco only extended to the City limits of said City. This property was bought up by Park, on joint account with Baldwin, which was valued at several hundred thousand dollars, and was bought for a mere song, as the Court had decided the sales invalid. Immediately after Mr. Baldwin took his seat he reversed the former decisions of the Court, and decided that the sales of said property under execution were good and valid, whereby he and Park pocketed over $300,000 by this speculation.

The next case of importance that came up is that of the Mariposa or Fremont Estate. Baldwin was employed on this case before he went upon the bench, and received a fee of $2500. After he took his seat on the bench, the case came up on a motion of rehearing to reverse the former decision of said Court, the argument was put off from time to time until Fremont sent Col. James, of Mariposa, to Baldwin with his, Fremont's Bonds, secured on the property for $100,000. After this the opinion was written by Field before he went East, he receiving $25,000 of Fremont's bonds for this service, and at the same time a certain Attorney was employed to bribe Terry, but Terry obstinately refused to sign the opinion, and Baldwin dare not, as he had been counsel in the case, as it appeared of record. After Field returned from the East he received an additional $25,000 from Fremont by the hands of James, after which the case was re-argued and Cope signed the opinion with Field, reversing the former judgment of the Court.

One of the next is the case involving the title to Sacramento City; in this case Field received $50,000 worth of City lots; $100,000 was paid for the decision, but $50,000 was retained by the Supreme Court brokers who transacted the business.

CALIFORNIA STATE LIBRARY
CALIFORNIA SECTION

Next comes the State Prison in which Baldwin was employed by Gen. Estell before he, Baldwin, went upon the bench, and was to receive for his services one quarter of all moneys that should afterwards be collected from the State under the Estell contract. Since this contract was entered into, there has been paid by the State over $200,000 on the same, of which Baldwin has received one quarter. Since the death of Estell, Baldwin and Field have purchased up the interest still belonging to the Estell estate, and also the interest belonging to Col. Graham, and most of the interest that belonged formerly to McCauley, so that they now own about seven eighths of the entire claim. These purchases have been made through the firm of Tevis and Haggin, who are Baldwin's Bankers, and who loan his money for him. The decision in this case which has just been rendered, was prepared in Field's most labored style, long before the argument of the case before the Court, and shown to and read by persons interested in the same. For the passage of the first Act of the Legislature appropriating $200,000 to pay the State Prison liability, Baldwin & Co. agreed to pay Parsons, or the Bulkhead Company, $25,000, out of the same for passing the Bill, and Baldwin agreed in addition that the Supreme Court should declare the Bulkhead Bill legal and constitutional. In the Supplementary Act appropriating $75,000 in addition, to pay the State Prison claim, one half goes to Baldwin & Co's State Prison contract and one half is set apart to elect men to the Legislature who will send Baldwin to the United States Senate, and who will then enact the Bulkhead Bill. So the State will pay $375,000 to the Court and the Bulkhead Company for corruption purposes.

Next in order is the case of Hart v. Bennett, generally known as the Peter Smith case. These titles have been confirmed by five Supreme Courts in five different cases; the first of which was rendered in 1852, in the case entitled Smith v. Morse. This Hart v. Bennett case was sent to the Supreme Court more than two years since. Baldwin had the case put off from time to time until about six months ago, when it was argued. After the case had been pending about six months, Baldwin made an arrangement with a certain Knight of the Quill, whose oratory and legal ability far exceeds that of his famous countryman, O'Connell, and who consented to be admitted to practice before the Supreme Court in one case only in order to carry out the views of Baldwin in this matter. Here is the programme, which has been fully carried out. This Knight of the Quill, or Webster of his age, was to obtain from the Settler's one half of all such claims as he could get, for legal services, and was to employ Beideman, Page and others to purchase up the remainder of the Settler's interest, all of which was to be held in trust by him, the Knight of the Quill, one half for the benefit of Baldwin and one half for himself—Tevis and Haggin advancing the money to make the purchases out of Baldwin's funds in their hands.

Now it will be seen by reference to the Recorder's office that more than one half of all the Settler's rights have been purchased within the last twelve months, and are now held and stand in the names of Beideman & Page and this convenient Attorney. The value of these claims has been variously estimated at from three to five millions dollars. So it will be seen that Baldwin gets for his services in writing this long opinion about $2,500,000 worth of property. In addition to the above interests secured to Baldwin, one of the Court's brokers, William N. Lent, has invested $27,000 in settler's claims for him, Baldwin; said Lent has also purchased for Baldwin's benefit, the major part of the well known Sherrback claim, which the Court has indirectly confirmed in the late Peter Smith decision. The money for these purchases and the $11,000 invested by Lent for Baldwin at Washoe are Baldwin's share of certain decisions, sold by Lent, according to his, Lent's statement, the particulars of which we will give in our next.

It is furthermore agreed and understood, that this Knight of the Quill, or Webster of his age in legal matters, is to be a candidate for the United States Senate, and is to concentrate the strength of his Celtic countrymen upon himself; all of which in fact is to be used by Baldwin at the proper time. One of the other Counsel in this case is also to be a candidate for the same place, and he is to concentrate the Broderick strength, which is in like manner to be under the control of Baldwin whenever called for. Judge Field's interest in this matter is much less. He freely stated to very many persons, up to within six weeks before the announcement of this decision, that he was decidedly opposed to reversing any decisions previously made by the Supreme Court in regard to Land Titles in San Francisco, and that all former decisions of that Court on that subject would stand as the law. About six weeks before the decision he came to San Francisco, and stopped at the Saint Francis Hotel on Clay street, where Mr. Low, of Marysville, called on Judge Field, and then and there paid to him, in coin, the sum of $10,000—(by the way $3,000 of this sum was soon after lost at a well known gambling house) —in consideration Field agreed to sign Baldwin's opinion for that sum and $50,000 of the Bensley Water Company's Stock, and also one half of Bensley's Settler claim on the Portrero, and Bensley agreeing to invest $5,000 in cash in the purchase of other claims for said Field. The Stock was paid and delivered at the same time that the money was, but there is not as yet any record of the transfer to Field of the Settler's claim above referred to. These facts are known to John Parrot, Bolton & Barron, Henry S. Dexter and other Trustees of the Bensley Water Company. The Mountain Lake and Lobos Creek, from which the Bensley water is obtained, has been sold under a judgment against the City, and would have been lost to the Company if they had not procured the former decisions of the Supreme Court to be reversed, and thus their stock would have become greatly depreciated.

Next comes the San Francisco Street Assessment liabilities. This question has been twice decided in favor of the City by two different Supreme Courts, and which are now reversed by this last edict. This is also one of the cases that Baldwin was employed in as Attorney before he went upon the bench. He received from Harry Meiggs and others, assignments of street contracts amounting to about $700,000; of this amount one half was to be retained by Baldwin for his services, in case of success. These contracts were decided by the City to be fraudulent, and the City refused to issue her scrip on the same. Baldwin had other suits on the same terms, in which the scrip had been issued, where both the contract and scrip were assigned, amounting to about $300,000—hence it is that the judgment just rendered makes the City liable on the contract in place of being liable on the scrip. There are of these rejected contracts, without scrip, now outstanding, about $1,700,000 sued on; and there is of the contracts with the scrip issued, including the Meiggs forgeries, about $1,100,000, making in all a claim or judgment against the City for about $2,800,000. The whole of these contracts and scrip, less about $100,000 has been bought up by Baldwin, Field, Lent, Parsons and Felton, at about five cents on the dollar,—Baldwin advancing most of the money through Tevis and Haggin for that purpose.

It is well known that Judge Cope is a mere tool in the hands of Baldwin, that Baldwin writes most of the opinions that appear to come from Cope, and that Cope is blindly used to carry out Baldwin and Field's schemes of robbery without securing anything for himself.

We next have the San Francisco City Slip property. Two different Supreme Courts have decided that the sale of this property, made by the City in 1853, at public auction, was good and valid. Baldwin was then the attorney on the losing side and against the City. This case involves a liability of the City of San Francisco of $2,300,000. Baldwin originally prosecuted about $400,000 of these claims against the City of which he was to have one half in case of success. Since the commencement of these suits in 1856, Baldwin, Field, Lent, Parsons and Felton, have bought up through Tevis and Haggin and other agents, at about seven cents on the dollar, nearly this entire claim against the City. Now it is well known that an opinion has been prepared by Baldwin, some months since, reversing the former decisions of the Supreme Court in this case, and that the decision will soon be filed making the City liable for $2,300,000, of which Baldwin and Company get about nineteen twentieths. Field will probably father this opinion. According to the estimate of one of the Court's most influential brokers, by overthrowing the former decisions of the first six cases, which they have already done, and the reversing of former decisions in the City Slip case, they, Field and Baldwin will make, putting their lands, stocks, and other securities at a fair cash value, at least five millions one hundred and fifty thousand dollars ($5,150,000).

It may not be inappropriate here to state, that Judge Field commenced his system of receiving bribes at San Jose, in 1851, while he was a member of the Legislature during the pendency of the Water Lot Bill, which passed, March 26, 1851. He received from the hands of Joseph C. Palmer $5,000, for his vote in favor of that bill;—this sum was contributed by J. C. Palmer, Gregory Yale, Archibald C. Peachy, J. L. Folsom, W. D. M. Howard, Wm. S. Clark, J. D. Stevenson, Talbot H. Green and others, either one of whom can testify to the fact.

EX-SUPREME COURT BROKER.

THE
CITY OF STOCKTON;

ITS POSITION,

17-3

CLIMATE, COMMERCE, RESOURCES, ETC.

TOGETHER WITH A BRIEF SKETCH OF THE

GREAT SAN JOAQUIN BASIN OF CALIFORNIA,

OF WHICH

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PUBLISHED BY AUTHORITY OF
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And Compiled by N. M. ORR, Secretary.

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Wm. Inglis,
H. S. Sargent,
H. C. Shaw,
J. M. Hogan,
R. B. Parker,
Samuel Elliott,
Geo. S. Ladd,
W. M. Hickman,
James T. Mills,
Fred. Arnold,
M. S. Thresher,
E. Moore,
L. M. Cutting,
Chas. Hass,
D. S. Rosenbaum,
E. E. Washburne,
A. Easton,
Austin Sperry,
E. Block,
E. Oullahan,
Wm. Kierski,
J. W. Smith.

B. F. Graham,
Geo. Chalmers,
John Jackson,
Ed. Hickman,
H. H. Hewlett,
H. T. Dorrance,
P. Mengle,
C. Grattan,
W. F. McKee,
L. M. Hickman,
B. Frankenheimer,
M. Kullman,
J. Doughty,
J. M. Long,
R. E. Wilhoit,
T. K. Hook,
W. G. Curtis,
M. Severy,
M. H. Boned,
Geo. Gray,
H. G. Boisselier,
John Elliott,
S. Waldman,
Frank Stewart,

THE CITY OF STOCKTON

AND

ITS RESOURCES.

Stockton, at present the third city in population in California, is located on a level prairie at the head of Stockton Slough, a wide and deep arm of the San Joaquin, which extends from the river three miles into the plain. It occupies a very favorable commercial position, the San Joaquin river being navigable to this point from San Francisco at all seasons of the year, for vessels of from one hundred and fifty to two hundred and fifty tons burden, and Stockton Slough, with its two branches, Mormon and Lindsay channels, both of which are navigable to central portions of the city—affords wharf room and harbor facilities such as are seldom possessed by interior towns. In the Winter and Spring months steamers also ply upon the upper San Joaquin for a distance of nearly two hundred miles above Stockton.

The country adjacent to the city is level, extending to the foothills of the Sierra Nevada Range on the east, the Coast Range on the west, while on the north and south stretch the vast inland plains of California, known as the Sacramento and San Joaquin valleys, which extend nearly the whole length of the State. On the east and north of Stockton the Sierra range of mountains is clearly visible in the distance, and as the higher peaks of this range are covered with snow at all seasons of the year, the residents of this valley, in which snow seldom falls, are afforded a view seldom obtained in any other locality of the same latitude on the continent. On the west and south, the Coast Range can be seen, its most prominent peak, Mount Diablo, adding materially to the beauty of the scenery.

The city was laid out into streets in 1849, by its founder, Captain C. M. Weber, who had been a settler in this county for several years previous. He obtained a grant from the Mexican Governor, Micheltorena, of a large tract of land in this vicinity in 1844, and has been a resident of this county ever since that time. The city of Stockton and the land adjacent is upon the grant made to him, and he has done much to make Stockton the prosperous and important city it has now become.

The corporate limits of the city at present extend over four square miles, and its streets run at right angles, dividing the city into blocks three hundred feet square. The principle streets are graded and graveled, and compare very favorably with those of other interior cities in California.

A street railroad is now being constructed which will connect the water front with the depot of the Central Pacific Railroad, and also extend into the suburbs, and afford improved facilities for communication between the business portions of the city and those parts principally occupied with the dwellings of its residents.

THE GROWTH OF THE CITY.

Stockton was one of the earliest settlements in the interior of California, but it has never passed through any period of rapid expansion such as were experienced by many other California towns that are now but the wrecks of their former greatness. Its growth has been steady and permanent, and it is now making as rapid advancement as at any previous period in its history, for the very good reason that its growth is keeping pace with the permanent development of the resources of the country of which the city is the commercial centre.

For the first ten years of its existence Stockton was principally supported by the trade of the mining regions of the counties of Amador, Calaveras, Tuolumne, Mariposa, Fresno and Tulare, all the supplies for these districts being shipped from this city. As the mining interests of these counties declined by the exhaustion of the placer diggings, more attention was paid to the development of the agricultural resources of the country, and it was soon demonstrated that the San Joaquin Valley was one of the most valuable agricultural regions on the continent, and that its latent wealth which had been overlooked during the period of the gold excitement, would, when developed, insure permanent prosperity to a vast area of country which had been pronounced nearly worthless by the gold seekers, who for several years had been traveling through it to reach the mines, which they believed to be the only source of wealth California possessed. The gradual development of the agricultural resources of the San Joaquin Valley has changed

Stockton from a simple entrepot and distributing point for miners' supplies, to an important market and shipping point for the immense products of the valley, and the importance of this new trade to the city is shown by its constant growth, and the general prosperity of its inhabitants. The estimated population of the city at the present time is 13,000.

The following table shows the increase in the assessed value of the property for the last seven years, the figures being taken from the various assessment rolls of the City Assessor:

Year.	Value.	Tax.
1863	$1,607,400	$2 70
1867	1,824,913	2 17
1868	1,983,427	2 60
1869	2,298,138	2 70
1870	2,723,506	2 25
1871	2,915,970	2 30
1872	3,240,035	2 00
1873	6,554,474	1 15

STOCKTON'S COMMERCIAL IMPORTANCE.

At the present time Stockton is undoubtedly the most important wheat mart on the Pacific Coast, and the local dealers in that commodity have during the last season controlled its prices for the whole State. The wheat trade of the San Joaquin Valley must constantly increase for years to come, as a greater area of land is annually brought under cultivation, and the adoption of improved methods of cultivation, and the extension of irrigating facilities to arid tracts now non-productive, will enlarge the product per acre.

In addition to its wheat trade, Stockton has become an important market for wool and other products of the valley, and this trade is increasing with the development of the resources of the comparatively new country which is tributary to this city. When the farmers of this State are induced to turn their attention to the cultivation of a greater variety of products, such as Cotton, Tobacco, Ramie, etc., which late experiments have proved to be susceptible of profitable cultivation in this locality, the commercial importance of Stockton will be still more rapidly increased. The real development of the agricultural wealth of this valley has but just commenced, and when the actual capabilities of its soil and climate are more generally known, there must be a rapid increase of population, and a consequent advancement of all its material interests.

The following table shows the wheat shipments from the port of Stockton for the last seven years:

COMPARATIVE WHEAT SHIPMENTS.

	Tons.	Bushels.	Value.
1867	25,928	864,266	$1,143,879
1868	41,545	1,384,833	1,162,924
1869	54,895	1,829,733	1,674,221
1870	47,076	1,569,200	1,047,660
1871	6,440	114,656	283,360
1872	102,040	3,410,333	3,008,960

The receipts of wheat in Stockton for 1873, were as follows:

Received by teams and steamers, tons	64,360
Received by railroad, tons	10,950
Total number of tons	75,310
Shipped during the six months ending January 1, 1874, tons	50,244
Leaving in store in Stockton, tons	25,066

During the year 1873, there was shipped by Stockton dealers, 603,400 pounds of Wool, valued at $102,578, and the exports of Poultry and Eggs were as follows:

82,000 dozen eggs	$ 32,800
7,100 dozen chickens	39,050
500 dozen ducks	4,500
2,800 geese	2,800
17,000 turkeys	25,500
Total value	$104,650

The following are the freight receipts by water craft, for the year 1873:

	Arrivals.	Freight Receipts.
Sail vessels	652	28,480
Steamers	482	18,107
Total	1,134	46,587

THE LUMBER BUSINESS.

There was received in 1873:

Lumber, rough and dressed, feet	7,000,000
Shingles	2,500,000
Shakes	800,000
Posts	75,000
Total value	$ 228,000

GRAIN STORAGE.

The storage capacity of the different warehouses of Stockton is sufficient to accommodate 65,000 tons, or 2,166,666 bushels. Some of these buildings are the finest of their kind of any on the Pacific coast.

CITY GOVERNMENT.

Stockton was incorporated as a city in 1850. At present the municipal government is in the hands of a Mayor and City Council, consisting of twelve members. The Mayor is elected annually, while the Councilmen are elected for two years, one half retiring each year. The municipal and police regulations of the city have always been most commendable, and as good order is maintained as in many of the older cities of the East, where the population is less cosmopolitan in its character and consequently more easily governed.

FIRE DEPARTMENT.

The city has a most efficient Fire Department, consisting of five volunteer companies, which are under the control of a Chief Engineer, elected annually by the firemen. The general interests of this Department are under the control of a Board of Delegates, who are in turn under the supervision of the City Council. There are in the hands of the companies at present two steam fire engines, two hand engines and one hook and ladder truck, sufficient apparatus to meet the present wants of the Department. Although Stockton, like all other California towns, has suffered severely from disastrous conflagrations, having at one time been almost entirely destroyed, and on several occasions seriously damaged, the energy and perseverance of her people have enabled them to speedily recover from these disasters, and the burned districts have always been speedily rebuilt with a better class of buildings than those destroyed.

PUBLIC BUILDINGS.

The buildings of the business portion of the city are principally constructed of brick, and many of them are such as would be a credit to older and more populous cities.

The County Court House and City Hall located nearly in the centre of the city, is the only building in the block, and surrounded by choice shade trees and shrubbery, that very materially improves the appearance of this portion of the city.

Stockton is well supplied with churches, and regular services are held in all by the different denominations represented. The total number of edifices of this kind in the city is thirteen, viz: Two Presbyterian, three Methodist, two Baptist, one Catholic, one German Reform, one Congregational, one Episcopal, and one Jewish Synagogue. Some of these are costly and imposing structures, showing that the residents of the city are believers in the importance of religious instruction, and ready to provide facilities for public worship.

PRIVATE RESIDENCES.

Stockton can show many very costly and beautiful private residences, and owing to the fact that much attention has been paid to beautifying and adorning the grounds and yards connected with the dwellings of its citizens, by the cultivation of choice trees, shrubbery and flowers, the appearance of the city is much improved and made more inviting. The mildness of the climate is such that the plants of tropical climes are successfully grown in the open air, as well as those of the temperate zone ; and in the Spring and early Summer months the display of rare flowers of almost every variety, in the gardens and private grounds of the citizens of Stockton, is such as is rarely witnessed outside of California.

PUBLIC SCHOOLS.

The public schools of Stockton have deservedly acquired a very enviable reputation throughout this State, and will compare favorably even with the schools of cities of the same population in New England. They are under the management of a Board of Education, comprising a Superintendent and six members, who are elected by the people, and hold their respective offices for two years. The city has always dealt very liberally with its school department, and has provided commodious and convenient school buildings, and always employed a very able corps of teachers. The pupils are noted for their proficiency in their various studies, and the graduates of the High School are well fitted for the general business of life.

The following statistics, compiled from official reports, will show more clearly the present condition of the public schools of Stockton :

FINANCIAL EXHIBIT.

For the fiscal year ending June 30, 1873:

Balance on hand per last report		$ 6,588 24
Cash of State	$ 6,200 37	
Cash of Library	421 30—	6,621 67
Cash of County		14,616 00
Cash of City Special Tax	7,163 46	
Cash of City	10,208 05—	17,372 51
Cash of Pacific District	365 55	
Cash of North District	577 79	
Cash of Vineyard District	179 00	
Cash of South District	498 76—	1,621 10
Cash donated		209 60
Cash for tuition		426 00
City School Bonds, counted as cash		50,000 00
Total receipts		$97,455 12
Due Savings and Loan Bank on purchase money for Jefferson school lot		2,150 70
Total		$99,605 86

EXPENDITURES.

Teachers salaries	$24,234 24
Fuel	797 45
Furniture	2,392 65
Buildings and repairs	32,364 71
Chemicals, etc	13 50
Interest	2,518 99
Books for indigent children	15 34
Sundry expenses	1,455 75
Library books	462 66
Janitors' salaries	2,266 50
Musical instruments	220 00
Gymnastic aparatus	2 75
School supplies	713 06
Insurance	453 74
Total	$99,605 82

NUMBER OF SCHOOL CHILDREN.

Number of children in this city under 15 years of age, as per Census Marshal's report, ending June 30, 1873	2,554
Number of colored children between 5 and 15 years of age	21
Number of children under 5 years of age	779
Number of children between 5 and 15 who have attended public school	1,456
Number of children between 5 and 21 years who have attended private school	144
Number of children who have not attended any school	272
Number of Mongolian children under 15 years of age	204
Number of Mongolian children attending school between 5 and 15 years	11
Number of deaf and dumb children under 21 years of age	3
Number of children attending public schools over 15 years of age	176
Whole number of days absence taken from teacher's reports	24,408
Whole number of tardiness	11,827
Number of school visits of parents and guardians	1,304

NUMBER OF SCHOOLS IN THE CITY.

One colored school, mixed grade; seven schools of sixth grade; seven schools of fifth grade; seven schools of fourth grade; five schools of third grade: four schools of second grade; two schools of first grade; one High School.

Valuation of school houses and furniture	$145,000 00
Valuation of school library	1,359 39
Valuation of school apparatus	928 35
Valuation of musical instruments	1,111 00
The average monthly salary of teachers during the year ending June 31, 1873	88 75

PROMOTIONS DURING THE YEAR.

From the sixth grade, 162 pupils; from the fifth grade, 180 pupils; from the fourth grade, 162 pupils; from the third grade, 139 pupils;

from the second grade, 63 pupils; from the first grade, 44 pupils. Death has removed two pupils from our school record the past year.

SCHOOL HOUSES.

Centre street old school building was erected in 1857, and is without record as to cost.

Lafayette School House was erected in 1864, at a total cost of $17,300.

Washington School House was erected in 1869. Total cost of building, furniture and lots, $29,474.

Jefferson School House was completed in April, 1871. Total cost, $23,095.

Franklin (new) School House, was built in the Fall of 1872. Total cost, $15,165.

Weber School House was completed last May, and cost $15,693.

The School House for colored children was built in 1868, at a cost of $900. The lot was donated by Captain Weber, who also graded and fenced the lot at his own expense.

The city likewise controls the school houses—frame buildings—in the North, South and Vineyard Districts.

RAILROAD FACILITIES—PRESENT AND PROSPECTIVE.

In addition to the facilities for water communication possessed by Stockton, the Central Pacific Railroad passes through the city, carrying the overland trade and travel between San Francisco and the Eastern States. Besides this great railroad line by which Stockton is directly connected with all the great commercial centres of the nation, direct communication is had with the Southern counties of the valley by the San Joaquin Valley road, which branches from the Central Pacific at Lathrop, nine miles south of Stockton, and runs south a distance of nearly two hundred miles. Trains run daily over this road between Stockton and its Southern terminus.

The Stockton and Copperopolis Railroad runs from the water front of the city to Milton, Calaveras county, a distance of thirty miles, and the Stockton and Visalia road branching from the Copperopolis runs to Oakdale, in Stanislaus county, a distance of thirty miles from the city front. The freight receipts from all these roads will average over five hundred tons per month, and the shipments from Stockton about seven hundred and fifty tons for the same time. Of the shipments about five hundred tons of freight per month leaves Stockton for southern portions of the valley.

A company is organized which has made a survey and let the contract to construct a narrow guage railroad from Stockton to Ione City, in Amador county, a distance of about forty miles. This road will bring to Stockton the trade and business of one of the richest mineral districts in the State, and will be the means of also developing important agricultural resources which are now latent on account of the present cost of transportation. Its construction will render available the immense deposits of coal known to exist in the county of Amador, and afford to Stockton an inexhaustible supply of cheap fuel, which must give a new impetus to the manufacturing interests of the city and cause the enlargement of the present manufactories and the establishment of new industries much needed in California to utilize and convert into merchantable articles products that are now allowed to go to waste, and also supply our home market with products that are exclusively impoeted from abroad.

A company has also been organized to construct a railroad from Stockton to Visalia, in Tulare county, a distance of one hundred and sixty miles. This company has made a thorough survey of the route, and the ultimate construction of the road is only a question of time, as a most valuable region of country would thus be brought within cheap and speedy communication with a market. This proposed road would command the exclusive trade of the eastern portion of the San Joaquin Valley for a distance of one hundred and sixty miles, as well as that of the mountain counties east of the valley.

OTHER MEANS OF COMMUNICATION.

There are four graveled turnpikes leading out of Stockton in different directions which have been constructed at considerable cost in order to furnish the required facilities for communication with the surrounding country.

MANUFACTORIES.

Owing to the high price of labor and cost of raw material, the business of manufacturing in California was for many years carried on under great disadvantage, and outside of San Francisco but little of this business was done. Stockton, however, has several manufacturing establishments that have been successfully operated notwithstanding the obstacles that had to be overcome in the creation of these new industries, and there is now every reason to believe that within the next three years the manufacturing interests of this city will be largely increased. It occupies a very advantageous position, having every facility for communication with the surrounding country, and the principal markets of the coast. The raw material to supply such establishments is produced in this locality. It is already demonstrated that cotton, hemp and flax, can be successfully cultivated in the San Joaquin Valley. The wool product of the State is immense, and its manufacture in Stockton is found to be profitable. With the unlimited supply of cheap fuel to be secured by the early construction of the Ione railroad, Stockton will be the most eligible point on the Pacific coast for these industries, and capital and skilled labor will be brought here to create such as are in demand to supply the wants of the Pacific coast and the markets of the Orient, with which intimate business relations are now being established by the citizens of California. The following statistics have been gathered to show the extent of some of the leading manufacturing interests of Stockton :

FLOUR MILLS.

There are two flour mills in Stockton—the "City Mills," owned by Sperry, Burkett & Co., and "Lane's Mill," owned by R. B. Lane. The following is the aggregate business done at the two establishments during the twelve months ending January 1, 1874:

Wheat ground	332,000	bushels.	Value	$397,400.
Barley ground	78,372	"	"	74,480.
Flour produced	73,680	barrels.	Value	478,820.
Graham Flour	360	"	"	1,960.
Cracked Wheat	600	bushels.	Value	1,080.
Cornmeal	1,002	barrels.	Value	4,862.

The City Mills also cleaned 38,333 bushels of wheat for seed, and for market. These mills give employment to about thirty men when run to their full capacity, and pay for labor some $25,000 annually.

SADDLERY AND HARNESS.

The number of men employed in this industry will average about thirty, and the aggregate manufactures for last year were valued at $140,000.

BOOTS AND SHOES.

The aggregate value of the annual manufactures in this line is about $60,000.

FOUNDRIES.

There are two foundries in Stockton that annually turn out large quantities of castings and miscellaneous machinery for mining, agricultural and mechanical purposes. The engines of many of the steamboats plying on the rivers of this State have been manufactured in Stockton, as well as many of those used in the mines and mills of California and Nevada. The average number of men employed in these two establishments is thirty-six. Their total business will aggregate over $100,000 per annum.

CARRIAGES AND WAGONS.

There are two quite extensive carriage manufactories in Stockton, where all kinds of vehicles from first-class carriages and hacks to common farm wagons are manufactured. These two establishments give employment to from thirty to forty men, and their aggregate business is about $75,000 per annum. Other smaller establishments do work in this line to the amount of about $16,000 per annum.

AGRICULTURAL IMPLEMENTS.

Two firms are engaged exclusively in the manufacture of agricultural implements, such as headers, wagons, horse-forks, cultivators, gang-plows and plows of other patterns. In this business thirty-five men are employed, and implements to the value of $100,000 are annually manufactured.

PLANING MILLS—AND SASH, DOOR AND BLIND MANUFACTORIES.

There are two firms in Stockton engaged in the business of manufacturing doors, sash, blinds, mouldings, etc., and in each of these establishments may be found all kinds of machinery generally used in shops of this kind. School furniture of a superior pattern and quality is also made by one of these firms. From fifteen to twenty-five men are constantly employed, and the aggregate business in this line amounts to about $75,000 per annum.

PAPER MANUFACTORY.

During the year 1873, the first paper mill in this part of California was put in operation in Stockton by R. B. Lane. The mill has cost about $75,000, and at present but one machine is in use. A company with a capital stock of $250,000 has been organized, which is made up of the wealthiest men of the city, and it is their intention to go into the business on an extensive scale. The company has purchased two more machines, and will during the present year place them in operation. The capacity of the machine now in operation is 3,000 pounds of paper per day. Superior wrapping paper and a fine article of newspaper is produced, the principal material being straw, of which this locality affords an abundant supply.

This industry promises to become one of the most important and profitable of any yet inaugurated in this city. A supply of pure water is a necessary requisite in the manufacture of paper, and it is obtained at this mill from a well on the premises.

MANUFACTURE OF TINWARE, ETC.

About thirty men are employed by individuals and firms engaged in the manufacture of tinware, pumps, water pipe, etc., and the aggregate business in this line amounts to about $50,000 annually.

WOOLEN MILLS.

Stockton Woolen Mills, situated on the south bank of Mormon Channel, were erected in 1870, and commenced operations on the 1st of October in that year. The proprietors, Messrs. Lambert, Doughty and Tatterson, originally invested about thirty thousand dollars in the enterprise, and during 1871, with one set of machinery, six thousand pairs of blankets of superior quality were manufactured. The capacity of the mills was doubled last September, since which time 1,000 pounds of wool have been used daily. The product of the mills is, on an average, 1,700 yards of flannel and 162 pairs of blankets per week. The pay roll averaged $600 per month, for eight months, and $900 per month during the last four months. At present fifteen men are employed in the establishment. This enterprise has been wholly satisfactory to its projectors, who propose to make further enlargements at an early day. As California is already producing more wool than any other State in the Union there will be no lack of material to supply all the woolen manufactories likely to be established on this coast.

TANNERIES.

Every person of middle age can recollect the time when the sole exports of California were hides and tallow, and the numerous bands of cattle that then roamed over her plains were slaughtered solely to obtain these products. Numerous tanneries located in the Eastern States then procured their supplies of hides from California, but this state of affairs has somewhat changed. A considerable portion of the hides now produced in California are here manufactured into leather, and this business has for several years been successfully carried on in Stockton. All the leather here produced is oak tanned and of a superior quality, and finds a ready sale. Orders for the same have during the last year been received from remote parts of the United States, and also from Japan and China. There are three tanneries in operation in Stockton, the largest being the Pacific, situated at the intersection of El Dorado and Oak streets. Another is situated a short distance from the Insane Asylum, on the east side, and is owned by Messrs. Wagner & Harrison. The smallest is located on the south side of Mormon Channel, and is owned and conducted by Mr. Kartschoke. The latter manufactured leather to the amount of about $24,000 in value. At Messrs. Wagner & Harrison's "Pioneer Tannery," there were fifteen men employed throughout the year. They tanned 280 sides per week, and the total value of the year's manufactures is given at $72,800. The Pacific Tannery, Kullman, Wagner & Co., proprietors, produced 30,000 sides of leather, valued at $150,000; and seventy-five dozen of upper leather. The force employed varied from twenty-five to forty men. Amount paid for bark, oil, tallow, lime and other manufacturing materials, exclusive of hides, $24,000.

WINE.

The soil and climate of this locality seems particularly favorable to the production of the grape, which is raised both for wine and table use. Several hundred acres of land in the vicinity of Stockton have been set out with vines which are now bearing, and the yield of grapes from the older vines is remarkable, ranging from seven to ten tons to the acre. During 1873, about 100,000 gallons of wine were manufactured here, about half of the grape crop having been sold for table use, the producers finding it more profitable to thus dispose of them than to work them up into wine. Grapes grown upon the soil in this vicinity are especially suitable for the production of Port and Sherry wines, and large quantities are made for the Eastern market, where on account of their superior quality they find a ready sale. The quality of the wine manufactured is improving each year as the manufacturers become better acquainted with the various branches of their business Much injury has been done to the credit of California wines at the East by parties who have shipped new wines and placed them upon the market before properly fermented, or before they had become clear. Unscrupulous persons have also put upon the Eastern market unsaleable foreign wines and represented them to be of California production. These difficulties have in a measure been overcome, and the proprietors of the principal vineyards in this State have established responsible houses in the Eastern cities, where the products of their vineyards are sold. When this business was first commenced in California but few of the many parties engaging therein were at all familiar with the process of wine making, and on that account the product of the vineyards was not of such a quality as to enable it to compete in the market with imported wines. As the quality of the California wine has improved the demand has increased, and the time is not far distant when the pure and unadulterated products of the California vineyards will drive out of the markets of the country many of the foreign varieties, and the health and morals of the people will be benefited by the change.

BREWERIES.

There are three breweries in Stockton, and the annual product of beer is about 600,000 gallons.

MARBLE WORKS.

Two firms are engaged in marble cutting, and all kinds of work in this line, such as mantles, tomb-stones and monuments, are made both from California marble, and from varieties imported from abroad.

OTHER INDUSTRIES.

A number of parties are engaged in making brooms, constructing windmills, in the manufacture of furniture, etc., and these industries are furnishing employment to quite a number of men, and the business is rapidly increasing.

PROJECTED MANUFACTORIES.

Several new manufacturing enterprises will probably be soon established in Stockton. Among the propositions now being seriously considered by the leading capitalists of the city, is one for the erection of a jute factory to manufacture grain sacks for the use of the farmers of California in the shipment of their wheat, and another is the building of a beet sugar manufactory, in order that thousands of acres of land in the immediate vicinity of Stockton, adapted to the production of beets, may be devoted to the profitable culture of that valuable product. Both of these industries have already been successfully inaugurated in other parts of the State, and the business has been found profitable. Three million pounds of sugar is reported as the product of two sugar factories for the year 1873, and the product is such that it will find a ready sale in any market.

GENERALLY PROSPEROUS.

Notwithstanding the difficulties that have been encountered by the originators of most of the manufacturing industries of Stockton, it is gratifying to know that all are now in a prosperous condition, and most of them will be soon increased to meet the growing demand for their products.

GAS WORKS.

The city is supplied with gas from works erected several years ago. Pipes have been extended along the principal streets, and most residents can have this luxury at very reasonable rates.

WATER AND WATER SUPPLY.

There is but one flowing artesian well in Stockton. This was bored in Court House Square at the joint expense of the city and county, for the purpose of testing the practicability of securing a supply of water by this means. During the process of boring several veins of water were struck that threw considerable streams above the surface, but none were deemed sufficient for the purpose until the stream now in use was reached at a total depth of one thousand and thirteen feet. This stream affords by actual test 250 gallons per minute, or 360,000 gallons every twenty-four hours. The flow has not perceptibly changed since the well was first bored, seventeen years ago.

A franchise was granted by the city and county in 1859, to Gen. P. Edward Connor, allowing him to construct works for the supply of the city with the said water, upon payment of a specified price per annum for its use. The necessary works were immediately constructed to raise the water into an elevated tank, and pipes were extended through which the water was distributed throughout the city. Previous to the erection of these works, water for irrigating purposes was raised by windmills, and the number that could at that time be seen in operation every afternoon in the summer season, when there is an almost constant breeze from the sea coast, gave to the city the cognomen of "City of Windmills." The extension of the pipes of the city water works has removed the necessity for the use of these mills, and excepting in the outskirts of the town beyond the reach of the public works, few of them are now to be seen.

As the city increased in population the supply of water from the artesian well was soon found to be inadequate to meet the wants of our people, and it became necessary to bore two other wells, from which a large supply is drawn, and the capacity of the works is now 900,000 gallons per day. The last mentioned are not flowing wells, but from them a large supply of water is obtained by pumping. In this respect Stockton is particularly favored, as an inexhaustible fountain underlies the whole city. Water can be obtained anywhere in this locality by boring to a depth of from eight to twelve feet, but the surface water so obtained is impure and unsuitable for general use. By boring deeper a stratum of subsoil totally impervious to water is reached, and underneath this hard-pan, which is at different depths in different localities, a layer of gravel is invariably found which carries an abundance of pure, cool water, equal in quality to that obtained from mountain springs. This subterranean reservoir is never affected by drouths or floods, and retains its limpid purity during all seasons of the year.

The boring of a well to reach this inexhaustible supply costs comparatively little, as no rock or boulders are ever encountered, and the work is accomplished by the use of an instrument very similar to a common wood augur. When the well is bored, a pipe of the same diameter as the well, is sunk for some distance into the hard-pan to prevent the orifice from being filled from the surface, and also to shut off the surface water. The suction-pipe of the pump is then lowered into the miniature well thus formed, and whether the said pump is worked by hand power, by a windmill or by a steam engine, it will be found very difficult to exhaust the supply or lower the water in the exterior pipe below its usual level, which is from eight to twelve feet below the surface of the ground. At the City Water Works, 600,000 gallons of water per day are pumped from the two wells mentioned, which are but ten inches in diameter and situated about ten feet apart. These wells are sheathed with galvanized pipe, and the suction-pipes connected with the steam pump are each eight inches in diameter, and extend into the well eighteen feet from the surface, or ten feet below the natural level of the water. The quantity of water obtained from these small wells proves most conclusively that Stockton is well supplied with this element, and that it will not be necessary for many years to construct costly aqueducts to lead water into the city from lakes or streams at a distance. The general health of the inhabitants is an evidence of the purity of the water now used, and the depth from which it is obtained and the impervious nature of the clayey subsoil which separates the subterranean current from the surface water will always keep it pure, provided proper care is taken in the construction of wells to prevent the intermingling of the water of the two strata.

BANKING FACILITIES.

Stockton has for the last ten years been a most favorable location for the capitalist. The development of the wonderful resources of the San Joaquin Valley has created a great demand for money, and it is always practicable to loan large sums upon first-class securities at rates of interest that would be deemed exhorbitant in most of the Eastern States.

During the last seven years four banks have been incorporated, all of which are now doing a good business. Below we give the names of these institutions, the amount of capital stock, and the names of their principal officers:

Stockton Savings and Loan Society, incorporated August 12, 1867. Capital stock, $350,000. J. M. Kelsey, President; James Littlehale, Cashier; S. S. Littlehale, Assistant Cashier.

Bank of Stockton, incorporated February 3, 1868. Capital, $500,000. G. W. Kidd, President; T. W. Newell, Cashier.

San Joaquin Valley Bank, incorporated March 31, 1868. Capital, $500,000. G. B. Claiborne, President; B. W. Bours, Cashier.

First National Gold Bank of Stockton, organized November 21, 1872. Authorized capital, $1,000,000; paid up capital, $300,000. Frank Stewart, President; H. H. Hewlett, Cashier and Manager.

The capital stock of these banks is almost entirely owned by the citizens of Stockton and its immediate vicinity, and we believe it is all held above par, and draws its regular monthly dividend of one per cent.

In addition to the capital furnished by the local banks, a large amount is loaned here by the banks of San Francisco and Sacramento, and by private capitalists. Stockton, as the commercial centre of the San Joaquin Valley, has furnished a large share of the capital used in developing its vast agricultural resources, and has been profited in turn by the consequent increase of business.

GENERAL BUSINESS.

Stockton has many substantial and wealthy business firms, and the annual sales of merchandise made in this city will aggregate several millions of dollars. Three firms are exclusively engaged in the sale of agricultural implements, for which there is an immense demand. The wholesale dealers in liquors, groceries and provisions, have a large and constantly increasing trade throughout the valley and adjacent country. In the city are several large and beautifully arranged dry goods establishments where all articles in that line can be obtained at the lowest market prices. In brief, Stockton is supplied with stores for the sale of all kinds of merchandise, and as there has been but few failures during the last five years, it is evident that business is generally profitable.

The stranger who visits the city will be favorbly impressed with the business activity at all times apparent.

HOTELS.

Stockton is well supplied with hotels, and the transient visitor can at all times secure satisfactory accommodations.

The Yosemite House, erected in 1870, is an imposing brick structure, three stories high, centrally located and well managed. It is now under the management of Mr. James Cole, a gentleman whose long experience in the business makes him specially qualified to conduct the house in a manner satisfactory to his many customers.

The Grand Hotel is also a fine, commodious brick building, three stories in hight, erected in 1870. This house is receiving a liberal share of the local and transient custom.

The Central Hotel is a very comfortable and convenient house, erected in 1872, and although located in a quiet portion of the city it has been well patronized.

In addition to the houses above mentioned, there are several others where comfortable accomodations can be obtained at moderate prices.

NOTED PLACES OF RESORT.

Stockton is the best point from which to start for those noted places of resort, the "Big Trees" of Calaveras and the Yosemite Falls. Trains leave Stockton daily for Milton, the present terminus of the Copperopolis Railroad, connecting at that point with a stage line which runs to Murphys the same day, through a country containing a great variety of scenery interesting to the tourist. From Murphys to the Big Trees, a distance of fourteen miles, the route is particularly romantic, and the scenery will richly repay any one for making the trip. The road runs through the magnificent timber belt of the Sierra range, and the number and size of the trees adjacent to the roadway will astonish the most experienced traveler. When the wonders of this mammoth grove are explored the tourist can take a stage for Sonora, Tuolumne county, which will pass through some of what were once the most noted placer mining camps in California, and he will see the results of that placer mining which fifteen and twenty years ago furnished employment to thousands of miners. From Sonora he can continue his way to Yosemite Valley via Chinese Camp and Garrote, and find the road all the way abounding in views that are interesting and instructive. On his return from the valley he can take a stage via Chinese Camp for Milton or Oakdale, and be landed in Stockton the afternoon of the second day after leaving the valley. Should the tourist only want to go to the Yosemite Valley and not take in the Big Trees of Calaveras on his trip, he can go direct to the valley over the route specified for the return trip. The distance from Milton or Oakdale to the Yosemite Valley is no farther than from Merced, while the latter place is situated sixty-six miles from Stockton, and the other named points are only thirty miles by rail. Travelers who last season made the trip to the valley via Milton and the Big Trees of Calaveras, were without exception delighted with the trip. Should the tourist desire to engage a private team and make this trip at his leisure, the livery stables of Stockton will furnish the desired outfit, with careful and experienced drivers, who are fully acquainted with the whole route. Parties who have frequently traveled to this great place of resort, almost invariably give the preference to the Stockton routes.

CITY PROPERTY.

Real estate in Stockton is held at prices that must be deemed very moderate when the encouraging prospect for the establishment at this point of a large commercial and manufacturing city is taken into consideration. Property along the principal business streets is held at high prices, and lots thus located have been sold as high as three hundred dollars for each front foot, the depth of the lot being one hundred feet. This price, however, cannot be obtained excepting for lots in choice localities, near the business centre of the town.

Lots 50x100 feet within five minutes' walk of the Court House, suitable for residences, can be purchased at prices ranging from $500 to $2,000, and in more remote portions of the city good locations for residences can be obtained for sums ranging from $100 to $400 per lot.

RENTS.

The price of rents varies, of course, with the locality, choice business property always commanding a high figure. Dwellings for rent are comparatively scarce, and good houses in eligible localities readily command from $25 to $40 per month. Comfortable dwellings can, however, be rented at a monthly rental of from $20 to $25.

COST OF LIVING.

Good board can be obtained at the best hotels and restaurants for $7 per week; and at respectable and comfortable hotels and boarding houses for $4 50 and $5.

The cost of provisions is not materially higher in Stockton than in many of the Eastern cities, and families can live as cheaply here as there.

WAGES OF MECHANICS AND COMMON LABORERS.

The wages of journeymen carpenters range from $3 to $4 50 per day; Journeymen blacksmiths about the same; machinists, $4 to $5; brick masons and plasterers, $4 to $5; harness makers, $3 to $3 50; tinmen, $3 to $4; common laborers, $2 to $2 50; and stevedores employed on the wharves during the season when extensive shipments of wheat are made, receive fifty cents per hour. House servants are in great demand, and they can readily obtain situations, the wages paid varying from $20 to $30 per month.

SOCIETIES AND ORDERS.

There is a large number of Societies and Lodges of different Orders in Stockton.

There are two Lodges of F. and A. Masons, San Joaquin Lodge No. 19, and Morning Star Lodge No. 68. There is also a Chapter R. A. M., a Council R. and S. M., a Commandery of Knight's Templar, and the other higher degrees of the Order.

The Odd Fellows have two Lodges and an Encampment. This Order owns one of the finest buildings in the city, which was erected by them in 1867. It is three stories in hight, built of brick, with an outside finish of concrete. The lower stories are rented for stores and offices, while the upper story is used by the Odd Fellows and Masons, both Orders having magnificent halls therein.

There are two Tribes of the Improved Order of Red Men in the city.

Among the other organizations are several benevolent associations. The Stockton Ladies' Benevolent Association and several others of this class have been instrumental in doing much good.

The Champions of the Red Cross, a temperance organization, is in a flourishing condition.

The San Joaquin Society of California Pioneers, made up of persons who arrived in this State before its admission into the Union, includes among its members many leading citizens of the city and adjacent country.

Stockton also has the following associations: Knights of Pythias, Independent Order B'nai Berith, Ladies' Hebrew Benevolent Society, Congregation Ryhyn Ahoovim, Turner Association, German School Association, German Glee Club, two Cornet Bands, Ancient Order of Druids, Irish American Benevolent Society, Ancient Order of Hibernians, two Literary Societies, and a Metaphysical Society.

CLIMATE OF SAN JOAQUIN VALLEY AS REGARDS COMFORT AND HEALTH.

The climate of the different sections of our coast presents, like that of Mexico, some striking and most agreeable varieties. Heat and cold, irrespective of latitude, occurs in certain places regularly from observable physical causes which are local; and humid winds, or arid calms, or grateful breezes characterize the climate of localities within comparatively short distances from each other—the manifest result of the configuration of the earth's surface. Thus in the great basin of the San Joaquin, the process of heating and cooling, of atmospheric rest and motion is carried on during Summer, with almost the regularity of the ebb and flow of the ocean tide. Near the coast, and stretching along for hundreds of miles parallel with it, this immense valley is effectually cut off by the coast range of mountains from the air of the sea, during the latter part of the night and fore part of the day while the atmospheric equipoise is undisturbed by local rarification. But as day advances and the sun warms and heats and rarifies the reposing atmosphere of the valley, the equilibrium is at length temporarily destroyed; and, soon after mid-day, the heavy, cool sea wind, put in motion and hurried on to restore nature's disturbed balance, comes sweeping up the outlet of the valley, and through the passes of the coast mountains with uncomfortable force and frigidity. With no obstacles to impede or deviate its course, it pursues the broad line of the great river of the south, passing over our city and the lower part of the valley in a northwest course, fresh and cool, gratefully tempered and moderated as it commingles in its first meeting with the soft, warm air of the interior, and spreads out over the wide expanse of green tules in which the valley terminates. In this way by a law of nature, the whole basin is filled daily, during the Summer, with the invigorating atmosphere of the ocean, aided somewhat in the night by the descending cool air from the snowy crests of the Sierras. With a temperature thus equalized and an atmosphere thus daily refreshed, the valley of the San Joaquin possesses a climate eminently conducive to both the comfort and health of man. The climate of California has been not inappropriately compared to that of Italy in the equability and agreeableness of its temperature. No equally extensive section of the State possesses in so eminent a degree those desirable climatic characteristics which justify this favorable comparison as does the valley of the San Joaquin. Low down the valley, about midway between the two mountain ranges, the temperature is almost exactly that of Naples, as the following record of thermometrical observations will show:

	Naples.	Stockton.
January	46	49
February	47	51
March	51	58
April	56	60
May	64	64
June	70	74
July	76	76
August	76	74
September	69	69
October	61	67
November	53	56
December	49	48

The foregoing table represents the mean temperature of each month of the year in Naples and in Stockton, the temperature of the latter place being taken from the record kept by Dr. R. K. Reid, and embracing a period of four years.

Along the coast side of the lower part of the valley the climate is much cooler in Summer than in Stockton, the high winds prevailing in the afternoon as in San Francisco, while far to the south and along the foothills of the Sierras, it is much hotter during the same season.

In regard to the healthfulness of the valley, to say nothing of the sanitary effect of the rapid desiccation and curing of most of the spontaneous vegetable productions when the dry season commences, this daily atmospheric current is constantly sweeping away in their incipiency the miasmatic exhalations and pestilent fermentations which might otherwise incubate and brood undisturbed over the rich bottom lands near the mouths of the tributary streams. In this unavoidable purification, carried on and forever to continue in obedience to the preservative and unalterable laws of nature, we have the promise of the future healthfulness of our increasing population. The experience of the past, too, may well inspire confidence. Carefully kept and scientifically arranged necrological tables, extending back more than ten years, show in this city a rate of mortality which compares favorably with the most healthy places on the globe; the ratio of mortality, exclusive of deaths from external causes or violence, being annually only one death to sixty-five of the population; while in Norway the ratio of mortality is one in 56; Sweden, one in 49; England, one in 44; France, one in 44; Prussia, one in 36; Philadelphia, one in 46; Baltimore, one in 41; New York, one in 38; United States, (as shown by the corrected estimates of the eighth census), one in 45.5. Epidemics and virulent infections have been rare and disinclined to spread; and the more genial and mild temperature of this sheltered region tends to stay the development of pulmonary affections and diseases of the respiratory system, while the chilling fogs and harsh winds of the coast are liable to provoke their dread attacks.

Along the estuaries of the San Joaquin river and at the mouths of its confluents, malaria is sometimes engendered, and intermittents in a mild form prevail to some extent late in the Summer, notwithstanding the unfailing sanitary influences of our post-meridian winds. But when we consider that these dank borders and low bottoms, on account of their moisture and supposed richness, were the first, and in some sections, until recently, the only part of the valley which were settled, and that even now they are seldom objected to by the experienced on account of their unhealthfulness, and when we further contemplate that these are but the narrow water lines and terminal borders of a valley whose length is estimated by hundreds of miles, and whose breadth is measured by the meridian lines of longitude; whose healthful and productive acres extend far away out of sight of the regions of Winter floods or Autumnal miasm, we may confidently feel assured of a population in this rich and truly magnificent valley, not only healthful in the usual freedom from bodily ills, but healthful in every essential interest which tends to constitute a wealthy, prosperous and happy people.

MORTALITY.

The following tables showing the mortality in Stockton, are made up from official sources, and are correct. They show that the percentage of deaths in this city is much less than in almost any other city of its size in the United States, being for the last two years but about one in each 100 of inhabitants:

DEATHS IN STOCKTON—1872.

	Whole No.	Male.	Female.	Adult.	Children.
January	8	7	1	6	2
February	8	6	2	6	2
March	8	7	1	7	1
April	8	5	1	4	2
May	19	12	7	7	12
June	19	14	5	9	10
August	9	5	4	3	6
September	8	4	4	6	2
October	7	2	5	2	5
November	5	3	2	4	1
December	5	3	2	3	2
Totals	102	68	34	57	45

DEATHS IN STOCKTON—1873.

	Whole No.	Male.	Female.	Adult.	Children.
January	15	9	6	8	7
February	6	3	3	2	4
March	13	8	5	11	2
April	13	8	5	7	6
May	12	9	3	5	7
June	13	9	4	8	5
July	14	9	5	9	5
August	9	5	4	7	2
September	6	4	2	5	1
October	9	3	6	3	6
November	11	6	5	6	5
December	11	7	5	6	6
Totals	133	80	53	77	56

THE SAN JOAQUIN VALLEY.

The vast region of country of which Stockton is the commercial centre, comprises the immense basin drained by the San Joaquin river and its tributaries. This water shed reaches from the summit of the Sierra Nevada mountains on the east to the summit of the Coast Range on the west and south, and to the divide separating the waters of the tributaries of the San Joaquin from those of the Sacramento on the north. Its shape is a parallelogram, whose greatest length running from north to south is about 250 miles, and greatest width from east to west, about 150 miles, with a total area of some 25,000 square miles, or 16,000,000 acres. Of this amount it is estimated that 10,000,000 acres are adapted to cultivation and pastoral purposes, that 5,000,000 acres are mineral and mountain lands, much of which is covered by a fine growth of timber, and 1,000,000 acres are swamp and overflowed, but generally susceptible of reclamation.

The San Joaquin Valley proper embraces less than one half of this territory, the other portions being hilly and mountainous, although in the foothills, and even in the more rugged and mountainous districts there are occasional valleys susceptible of cultivation, while the hillsides and table lands of the foothill regions are peculiarly well adapted to horticulture, the finest fruit in the known world being produced in the greatest profusion along the eastern slope of the Sierras, many varieties being raised at an altitude of three thousand feet above the level of the sea.

The San Joaquin Valley is of an average width of about thirty miles. It is nearly level or slightly undulatory, with a slight elevation above tide water, with occasionally low knolls and sinks or depressions. Within the valley there is little timber, such as there is being confined to the vicinity of the water courses, and only fit for fuel. The valley is comparatively well watered, the San Joaquin river flowing through over half its total length from south to north, and receiving from the east the waters of its principal tributaries, the Fresno, Merced, Tuolumne, Stanislaus, Calaveras and Mokelumne. The southern portion of the valley is watered by Kings, Kaweah and Kern rivers, the waters of which are discharged into Tulare lake, and in case of high water, from thence into the San Joaquin. The land of the valley is diversified in character. Along the San Joaquin, and especially in the neighborhood of its junction with the Sacramento, there is a large area of swamp and tule land, the latter being so called because it is covered with a growth of a species of rush or flag called tule. This land is, however, susceptible of reclamation, and when guarded from overflow becomes very productive. Large tracts are being reclaimed by the construction of levees and ditches, and it is believed that eventually this will be ranked as the most valuable land in the State. As high as sixty bushels of wheat to the acre have been raised on tracts now reclaimed, and as it will grow almost every kind of product its value can hardly be overestimated. The swamp lands of this tract are very valuable for grazing purposes. In the latter part of the season when vegetation on the uplands is destroyed by the prevalence of the summer drouths, the water in the rivers recedes, and the low lands along their borders furnish an abundant supply of feed for stock. The tracts that have been thoroughly reclaimed are held at comparatively high prices, although farmers who are engaged in their cultivation find that the amount of products raised pays them a good interest on the price of the land. Along the various water courses there is considerable bottom land exceedingly productive and easily worked, from which all kinds of products can be raised. The valley also contains many large tracts of what is generally denominated adobe land, a black, tenacious, alluvial soil, exceedingly fertile but hard to work. This kind of land is, however, when properly tilled, remarkably productive, and it is also found that when properly cultivated it is much less affected by prevailing drouths. In much the larger portion of the valley the soil is a sandy loam, easily worked, which, although not as productive as the bottom or adobe land before mentioned, is well adapted to the production of cereals, and on account of the slight cost of cultivation is very profitable for tillage. Vast tracts of this character of land have been brought under cultivation within the last seven years, and in many portions of the valley continuous fields of wheat may be seen extending for miles, or as far as the eye can see, which in favorable seasons will yield their fortunate owners from fifteen to twenty bushels to the acre. The immense wheat product of this valley in favorable seasons proves most conclusively the capabilities of its soil, and there are several reasons why this land will not be as soon exhausted as that of the Eastern States. The land has more rest. Vegetation is impossible excepting for a few months in the year, and after the grain crop is harvested the land has actual rest until the commencement of the next rainy season. The soil becomes so dry from the Summer drouth that no seed will sprout, and for several months the germ of the succeeding year's vegetable life is retained in the soil without a possibility of its exhausting its strength any more than it would if stored in the granary of the farmer.

All the native grasses and plants which in the early Spring months clothe the plains and hillsides of California in a mantle of beauty, are annuals, that spring from seeds deposited the previous year. No more beautiful sight can be desired than to behold these vast tracts of plains and hillsides covered with a perfect carpet of flowers of every color and almost innumerable varieties. A few days of Summer heat will, however, make a marked change in the scene. All kinds of vegetation is withered and the whole face of nature completely changed. The herbage is scorched, sere and brown, and the country is made to look like a barren desert. The Eastern visitor, accustomed to green fields, who arrives in California at this season of the year, can hardly believe that the reports he has heard concerning the agricultural resources of California, are correct. He will see cattle feeding on the dry and parched herbage, and will wonder what they find to live upon. An examination will, however, convince him that nature has many ways of providing for the support of animal life. The dessicated grasses and herbage which he at first would have pronounced destitute of sustenance, will be found to be very nutritious, and as there is no dew or rain, they retain all their substance. He will also find that many of these plants have produced large quantities of seed, and that the ground is in places completely covered with the same, and the cattle that he thought liable to starve are thus afforded a supply of food fully equal to their wants.

Among the Sierra Nevada mountains, on the east of this valley, some of the grandest and most magnificent scenery in the known world is to be found, several peaks of this range rising to the highest altitude of any land on the American Continent. The wonder of all mountain scenery, the Yosemite Falls, on the head waters of the Merced river, are the most picturesque and elevated cataracts in the known world, there being one perpendicular fall, without a break, of over 1,600 feet, and several others ranging from 300 to 900 feet in hight. The Yosemite Valley, in which these wonderful cataracts are to be seen, abounds in scenery that is unparalleled by that of any other locality in the known world. The valley itself is a wide and deed gorge cut in the solid granite, with perpendicular walls upon either side, rising in places to the enormous hight of 4,800 feet. This extraordinary gogre is from one-fourth of a mile to one mile in width, and through it calmly flows the waters of the Merced river, after they have made their wild leap from the precipices above. In this portion of the Sierras the most sublime mountain scenery is to be found, and the number of persons from all portions of the known world that are annually visiting these fastnesses to behold their wonders, is constantly increasing.

In this range, at an elevation of over four thousand feet above the level of the sea, are those marvels of the vegetable kingdom, the *Washingtonia Gigantea*, or Big Trees of California, that stand like gigantic sentinels to guard these mountain fastnesses. There are several groves of these trees, but those of Calaveras and Mariposa counties are the most celebrated, and are visited by thousands of people each season.

A valuable belt of timber extends the whole length of the Sierra Nevada Range, and although in the mining counties bordering the San Joaquin Basin immense quantities of lumber have already been produced to supply the wants of the mining regions and the adjacent valley, there are still, in the counties of Amador, Calaveras, Tuolumne, Mariposa, Fresno and Tulare, immense forests of pine, fir and cedar, capable of supplying all the lumber of this kind that will be required for generations to come by the inhabitants of this great basin. This timber belt is from twenty to forty miles in width, and many of the pine trees would be considered of enormous size were it not that the "Big Trees" so called, were so much larger. Pine trees from six to ten feet in diameter, and from two to three hundred feet in hight, are not uncommon. The climate of these mountain regions is in the Summer season most delightful, and particularly favorable to persons subject to pulmonary complaints. The atmosphere is always clear and bracing, and never uncomfortably warm. With improved means of communication this region of country would become a popular Summer resort, not only for the inhabitants of the valleys and seaport towns, but for invalids from all parts of the United States.

The large extent, varied resources, and known capabilities of the lands of the San Joaquin Valley give assurance that at an early day it will become densely populated by a prosperous people. The cultivation of the soil will always be the principal industry, yet there are numerous opportunities for the establishment of such others as are required to make a community truly independent and self-sustaining.

Experiments have already demonstrated that cotton, hemp, flax, jute, hops, chiccory and the sugar beet, can be successfully produced, beside a number of semi-tropical fruits, which will eventually be in great demand. Oranges, limes, lemons, olives, prunes, etc., grow luxuriantly in this climate. The fig flourishes as though indigenous to the soil, and there are thousands of trees scattered throughout the valleys and foothills that already produce fruit in abundance. As the means of communication are more generally improved, so that the products of the various fields and orchards can more readily be transported to market, many of the products of the soil which are now wasted will be utilized and made to add to the general wealth of the communities. As the facilities for irrigation are extended, the old system of stock raising will be abandoned, and farmers will, by the introduction of the Chili clover or alfalfa, raise more feed for stock upon a single acre than ten acres will produce of the native grasses. Alfalfa is found to be one of the most profitable products that can be raised upon land susceptible of irrigation. In favorable soil several crops can be raised in one season, and as it is valuable for feed or for hay, the product of a small patch will support more stock than hundreds of acres of wild and uncultivated land. The development of the resources of this valley has hardly been commenced, and the full capabilities of the soil will not be fully shown until this proposed system of irrigation, which is to include most of its arid lands, shall have been carried into successful operation.

THE SYSTEM OF TILLAGE

Practiced by the farmers of California differs very materially from that adopted in other States, and while it would be impracticable in a different climate, or with other varieties of soil, it is here practiced successfully.

Gang plows are generally used in the cultivation of the lighter soils, and as many as six plows are attached to the same frame. From six to twelve mules or horses, are required to operate one of these gangs, the number of animals depending upon the number of plows attached and the character of the soil. The teams are driven and the plows managed by one man, and as on the extensive and unfenced plains of the San Joaquin Valley, continuous furrows for miles in length are often made. The amount of work accomplished by a single man is much greater proportionately, than if a single plow was used. When the ground is plowed for a crop the same season patent seed-sowers are often attached to the gang-plows and the whole work of tilling the soil, sowing and covering the seed, is done by one operation. When the ground is summer-fallowed, a practice now being generally adopted on the heavier soils, the plowing is done in the Winter and Spring months, and the ground then remains fallow through the Summer. In the following Autumn the seed is sown oftentimes in the dust, in order that it may have the whole benefit of the early rains. Ground thus prepared is found to be much more certain to produce a crop, as the seed germinates and takes root as soon as the ground is moistened, and is thus more likely to mature before the commencement of the Summer drouths. This practice is in strict conformity with Nature's beautiful system of perpetuating vegetable life in these naturally arid plains, which has already been described. After the grain is sown it matures without further care, and when the harvest season arrives the California farmer has many advantages not possessed by the Eastern husbandman. Rain never falls in California during the harvest season, the sun shining continuously from a cloudless sky. Little if any dew falls at night, and the grain can be left standing in the field until perfectly ripe, without fear of its being damaged by moisture. When ready for cutting the California farmer drives to the field with his header and commences his work. These headers are so constructed that the heads alone are removed from the stalk, while the bulk of the straw is left standing upon the ground.

The heads of the grain when clipped from the stalk drop upon a revolving apron, upon which they are carried and dropped into a wagon expressly made for the purpose, which is driven alongside of the heading machine. As one wagon is filled another takes its place, while the first is driven to the stack and unloaded. The headers are of different sizes, some cutting a strip twenty-four feet in width. From six to ten horses working abreast are used to operate them, and the team is guided and the machine managed by one man, who is thus enabled to harvest from fifteen to twenty-five acres per day. Owing to the thorough dryness of the atmosphere the stacks may remain in the field without danger, or the grain may be threshed at once, at the option of the owner. The threshing machines used are capable of doing a large amount of work, and all have separators attached so that the grain is discharged directly into the sacks, ready for shipment. Portable steam engines are used to a considerable extent to furnish the power to run these machines. In moving the grain from the stack to the threshing machine, and also from the header wagon to the stack, horse-forks are used which will perform the work of a number of men. These instruments consist of a derrick and system of ropes and pulleys to operate a huge fork which, when dropped into a pile of hay or straw, can be thus made to lift at one time a large quantity. A horse attached to a rope, work the instrument. This instrument is the invention of a San Joaquin county farmer, and has already come into general use throughout the valley.

At present wheat is the leading product of this valley, as statistics elsewhere given will show, but the attention of farmers is being turned to the cultivation of other products, and there is reason to believe that much of the land that is now exclusively devoted to the production of that staple will be devoted to other purposes.

AGRICULTURAL COUNTIES.

San Joaquin is the northern county of the agricultural counties of the valley, and has an average length of about forty miles, by a breadth of thirty miles. This is exclusively an agricultural district, there having been no important deposits of minerals found within its borders. The land of this county is generally level, although in its eastern portion are some of the lower foothills of the Sierra Nevada Range, while the extreme southwest portion of the county is a rough and mountainous district in the coast range of mountains. Of the 896,000 acres comprised within the limits of the county, over three-fourths are capable of producing good crops of grain. In the northwestern portion of the county there is an immense tract of tule land bordering the San Joaquin river and its various branches and sloughs. Much of the land is now being reclaimed, and some tracts have, during the last season, been successfully cultivated. San Joaquin contains no timber fit for making lumber, and although most of the water courses are skirted by a growth of oak trees, and the plains in the vicinity of Stockton are for a considerable distance dotted with trees of this variety, a large portion of the county is a treeless prairie. The lumber for the supply of the inhabitants is obtained at reasonable rates, both from the timbered regions of the Sierra Nevada mountains and also from the redwood districts of the northern portion of the State, from which the lumber is shipped to Stockton. The San Joaquin river runs through this county from the south to the north, and here receives the water of several tributaries from the east, the most important of which are the Mokelumne and Calaveras. The eastern portion of this county has been less subject to drouths than the more southern counties of the valley, and the average yield to the acre has been as great as in any other part in the State. On the west side of the San Joaquin river there is a vast plain several miles in width, extending from the river back to the foothills of the Coast Range which, however, is particularly subject to the effects of the drouth. The soil is a rich, sandy loam of considerable depth, and in favorable seasons produces extraordinary crops of the cereals, but from the peculiar conformation of the country, and the prevailing direction of the winds during the Winter season, the rainfall is often much less than in the eastern portion of the valley. This peculiarity being noticeable throughout the whole length of the valley, it is proposed to construct a canal from the upper San Joaquin along the foothills, on the west side of this plain, in order that this valuable tract of land may be irrigated each year. This plan is perfectly practicable, and some forty miles of canal have already been constructed. When this work is completed, this portion of San Joaquin county as well as the whole region of country on the west side of the San Joaquin river, will be made exceedingly valuable.

During several of the dryest seasons that have been experienced in the San Joaquin Valley during the last ten years, fine crops have been raised wherever it was possible to irrigate the land, and along the Calaveras river there are considerable tracts of land over which ditches have been constructed to conduct the water when the same may be needed. The success attending the experiments made by these land owners has demonstrated the practicability of irrigating large areas of land, and there is no doubt of the speedy adoption of some comprehensive plan by which the waters of most of the rivers of this valley will be utilized, by causing them to flow over the dry and arid plains, and thus increase the productive qualities of the land rather than to flow to waste as at present. With such a system of canals as might be constructed at comparatively little cost, nearly one half of the land in San Joaquin county could be irrigated each year, and the annual production be thereby increased almost indefinitely.

There is but little land in the county not under cultivation or used for grazing purposes, and with few exceptions it is generally owned by the parties cultivating the same. There are also fewer large tracts held by single individuals than in some other portions of the valley. The price will vary from ten to one hundred dollars per acre, although that of a good quality in the vicinity of railroads can be purchased for from twenty to fifty dollars per acre, according to the character of the soil.

There are several small villages in the county, among which are Woodbridge, Lockford, Lodi, Linden, Farmington, Bantas and Ellis. At each of these points are churches, school houses, stores and mechanical shops, for the convenience of the surrounding country. In the county outside of Stockton there are seventy-one school districts, in each of which a school is kept up at least six months in the year. Most of these districts have comfortable school buildings, and the schools are generally under the control of capable teachers, and will compare very favorably with country schools in the older States. The total number of pupils taught in the county schools (not including Stockton) during 1873, was 2,762.

The following statistics, made up from official sources for the year 1872 (the reports for 1873 not being completed), will show something of the present standing of this county:

SAN JOAQUIN COUNTY.

Acres of land enclosed in 1872	275,000
Acres of land cultivated in 1872	225,000
Acres of wheat	186,125
Bushels of wheat	2,667,800
Acres of barley	29,375
Bushels of barley	538,840
Acres of wheat sown in 1873	190,000
Acres of barley sown in 1873	33,000
Acres of oats	79
Bushels of oats	2,830
Acres of rye	331
Bushels of rye	3,950
Acres of corn	1,495
Bushels of corn	41,850
Acres of hay	17,500
Tons of hay	16,750
Acres of hops	19
Pounds of hops	10,700
Pounds of butter	175,000
Pounds of cheese	10,000
Pounds of wool	274,265
Hives of bees	1,675
Pounds of honey	4,500
Number of fig trees	2,500
Number of lemon trees	50
Number of orange trees	50
Number of olive trees	25
Number of prune trees	75
Number of mulberry trees	50
Number of almond trees	00
Number of walnut trees	500
Number of grape vines	1,000,000

Number of gallons of wine	70,000
Number of horses	9,201
Number of mules	914
Number of cows	5,037
Number of calves	5,131
Number of beef cattle	8,563
Total number of meat cattle	18,732
Number of sheep	57,938
Number of Cashmere and Angora goats	31
Number of hogs	1,300
Grist mills (steam)	4
Run of stone	17
Barrels of flour made	77,000
Bushels of corn ground	6,000
Irrigating ditches	2
Acres irrigated	4,500
Woolen mills	1
Pounds of wool used	100,000
Railroads	4
Number of miles	91½

Assessed value of property, 1873:

Real estate	$10,768,562
Improvements	$ 3,980,684
Personal property	$ 3,482,321
Total valuation	$18,231,567
Estimated total population	25,000
Registered voters	5,000
Poll tax collected in 1872	7,162

STANISLAUS COUNTY

Is the next south of San Joaquin, and like the former, is almost entirely an agricultural district. It extends forty-eight miles northeast and southwest, and about twenty-six miles in a transverse direction, containing about 800,000 acres, of which a large proportion is rich farming land. In the eastern part of the county, in the edge of the foothills, along the Stanislaus and Tuolumne rivers, were formerly valuable placer mines, but these are now mostly exhausted, although at La Grange, on the Tuolumne, there are some extensive hydraulic claims which are being worked on a large scale, a canal having lately been constructed to furnish water for the purpose. This county, like San Joaquin, extends the whole width of the valley, and also includes portions of the foothills on the east and the Coast Range on the west. With this exception the land is generally level or slightly undulating. No timber fit for lumber is found in the county, and the growth of oak trees is principally confined to the water courses. The lands of this county were principally devoted to grazing purposes, until 1866 and 1867, up to that time little farming being done except on the river bottoms. Since that time the whole country has been taken up and thousands of acres of virgin soil has each year been brought under cultivation. Immense tracts which were for years considered comparatively of little value for agricultural purposes have been found capable of producing large crops of cereals, and in 1872 this was the banner wheat county in the State, the total product being in the neighborhood of 5,000,000 bushels, and the average yield per acre was estimated at eighteen bushels. The character of that portion of this county lying on the west side of the San Joaquin river is very similar to that of San Joaquin, and it will be benefited in an equal degree by the adoption of a system of irrigation. The Stanislaus and Tuolumne rivers, two of the principal tributaries of the San Joaquin, flow through this county, and when a system of irrigation is adopted they will furnish sufficient water to irrigate most of its level land. Along these rivers there is some fine bottom land, but the amount is limited. The San Joaquin river is navigable for several months in the year, and considerable business is done at different points along the river, with the steamers plying upon its waters. Grayson and San Joaquin City are, during high water quite important shipping points, and from these places large quantities of produce are shipped to Stockton, while considerable quantities of freight and lumber are received to supply the wants of the surrounding country. The San Joaquin Valley Railroad runs through the county from north to south, and the Stockton and Visalia branch of the Copperopolis Railroad terminates at Oakdale, on the south bank of the Stanislaus river. Modesto, the county seat, is situated on the San Joaquin Valley Railroad, about one mile north of the Tuolumne river. This town was first commenced in 1870, upon the location of the line of the railroad, but it is now a place of considerable commercial importance, and promises to become a permanently prosperous and thriving town. It is located in the centre of a valuable agricultural district, whose trade it will always control. A new court house has been erected at this place during the last year at an expense of about fifty thousand dollars which is a very commodious, convenient and imposing structure. Modesto contains about twelve hundred inhabitants, and the population is constantly increasing.

Knight's Ferry, the former county seat, is located on the Stanislaus river, near the western boundary of the county. This was once a populous mining camp, but the placer mines are mostly exhausted, and the people of this region are now generally engaged in agriculture, fruit growing and stock raising. At this point the Stanislaus river furnishes one of the finest water powers in the State. A flour mill is located here which is doing a fine business. Near Knight's Ferry are some fine vineyards, that of Messrs. Schell, Krause & Co. being the most noted. A large quantity of wine of a superior quality is annually made, most of which is shipped to the Eastern States, where it finds a ready sale.

Turloch, quite an important trading point on the line of the San Joaquin Valley Railroad, is situated about twelve miles south of the Tuolumne river, in the centre of an extensive farming region.

Lagrange, situated on the south bank of the Tuolumne river, in the southwestern portion of this county, was one of the earlier mining towns in this part of the State, and is still principally supported by that industry. It now contains a population of about five hundred, and since the completion of a mining canal lately constructed, has been quite a prosperous place.

Oakdale, the present terminus of the Stockton and Visalia Railroad is beautifully located about one mile south of the Stanislaus river, on a level, sandy piece of land which is thickly covered with a growth of oak trees. From this point teams take most of the freight for Knight's Ferry and the county of Tuolumne. Large quantities of wood are being at present shipped from this point to the Stockton market.

The following statistics have been compiled from the Assessor's report for the year 1872:

STANISLAUS COUNTY.

Acres of land enclosed in 1872	450,000
Acres of land cultivated in 1872	401,000
Acres of wheat	360,000
Bushels of wheat	5,000,000
Acres of barley	40,000
Bushels of barley	800,000
Acres of wheat sown in 1873	365,000
Acres of barley sown in 1873	35,500
Acres of corn	200
Bushels of corn	10,500
Acres of hay	1,000
Tons of hay	1,000
Pounds of butter	6,650
Pounds of wool	637,400
Number of grape vines	225,000
Number of gallons of wine	50,000
Number of gallons of brandy	1,500
Number of distilleries	1
Number of gallons distilled	3,000
Number of sheep	134,505
Grist Mills—steam	1
Run of stone	3
Grist Mills—water power	1
Run of stone	3
Barrels of flour made	15.000
Bushels of corn ground	5,000
Mining ditches	2
Miles in length	14
Amount of inches of water used per day	500
Acres of land irrigated	350
Number of railroads	3
Number of miles of railroad	33
Assessed value of property, 1873:	
Real estate	$4,125,098
Improvements	813,882
Personal property	1,407,217
Total valuation	6,345,197
Total population	7,000
Registered voters	2,174

MERCED COUNTY.

The county next south of Stanislaus is Merced, which is about sixty miles in length and twenty-five in width, and contains an area of 1,000,000 acres. This county is very similar in character to Stanislaus in soil and climate, and although not as thickly populated it contains a large amount of productive farming land which is being rapidly settled and improved. The Merced river flows through the eastern portion of this county on its way from the Sierras to the San Joaquin, of which it is one of the most important tributaries. Along this river is a large area of superior bottom land, which produces immense crops every year, not only of the cereals but of corn, sweet potatoes, and in fact almost any product that can be grown in California. The soil is a rich, sandy loam, easily worked and sufficiently moist to insure the growth of vegetation. Two crops in a season are frequently raised, it being nothing uncommon to raise a crop of barley and one of corn from the same ground in one season. Some of the finest farms in the San Joaquin Valley are to be found on the Merced river, and now that improved means of transportation are afforded by which their products can be speedily transported to market, the capability of the soil to grow all varieties of products will render them very valuable.

During the last three years several parties have made experiments in the culture of cotton, and the result is most satisfactory, proving conclusively that this valuable staple can be profitably grown in California. In 1873 about two thousand acres of land in this county were planted, and the yield has been equal to that of some of the best plantations in the Southern States, ranging from 250 to 600 pounds to the acre. It can also be raised at less cost here than in the Southern States. The success attending the experiments already made will induce others to engage in the cultivation of this staple, and more land will be hereafter devoted to that purpose, not only in this county, but in others of the San Joaquin Valley, all of which contain land that is particularly well adapted to cotton culture. South of the Merced river, there is a fine body of land, which is watered by Mariposa and Bear creeks. On Mariposa creek cotton has also been successfully raised, while all that portion of the county south of the Merced river is found to be capable of producing good crops of the cereals. That portion of Merced west of the San Joaquin river, like the same portions of Stanislaus and San Joaquin, is naturally arid, but with irrigation becomes remarkably productive. Companies have been formed to construct canals in which to lead the waters of the rivers out upon the plains, and when these works are accomplished these lands will become as productive as any others on the continent.

The San Joaquin Valley Railroad runs through Merced county from north to the south, and furnishes means of communication with the commercial centres of the State, without which a large area of its territory would be suitable only for grazing, a purpose to which it was solely devoted before the completion of the railroad. As but two years have elapsed since the cost of transportation has been sufficiently low to make it possible to raise wheat for the Stockton or San Francisco markets, the full capabilities of this portion of the county have not yet been demonstrated.

The principal town is Merced, the county seat, situated on the line of the railroad, about midway of the county north and south, and near Bear creek. This town was commenced in 1871, but its growth has been very rapid. It now contains many substantial buildings, some of which are of brick, well constructed and such as would be an ornament to older towns. One of the finest hotels in the valley is located here. A new Court House is to be erected during the coming season which is to cost $75,000. The town is centrally located in a valuable agricultural district, and freights for the eastern part of Merced and Mariposa counties leave the railroad at this point. Stages run from this town to Coulterville and Mariposa, from which places passengers can be forwarded to the Yosemite Valley.

Snellings, the former county seat, is situated on the Merced river, in the eastern part of the county, and until the completion of the railroad controlled the trade of this important portion of the valley. It still has the trade of a rich agricultural district.

Merced Falls, on the Merced river, about four miles above Snellings, furnish a fine water-power for manufacturing purposes. In 1871 a mill which had been erected at this point at a cost of seventy-five thousand dollars, was unfortunately destroyed by fire, and with it a flour mill. The woolen mill has not been rebuilt, although the site is one of the most favorable for such an establishment in the State. Another fine flour mill has lately been erected at this point, and it is now in successful operation.

Hill's Ferry, on the west side of the San Joaquin river, is quite an important shipping point, and during the stages of high water when steamers ply upon the upper San Joaquin, a large business is done there. Plainsburg is a little village on Bear creek, a short distance from the railroad, and is a place of considerable trade.

Merced is rapidly increasing in population and wealth, and is destined to become one of the most prosperous of the valley counties. Its assessment rolls for several years have shown that in proportion to its inhabitants it was one of the wealthiest counties of the State. Farming on the Merced bottoms has always been profitable, and many of the owners of this land have become wealthy, and there are also many men who have been remarkably successful in stock raising and sheep-husbandry, occupations that are still leading industries of the county. The following statistics from official reports will show something of its present condition of

MERCED COUNTY.

Acres of land enclosed in 1872	86,192
Acres of wheat	200,000
Bushels of wheat	1,426,897
Acres of barley	75,000
Bushels of barley	306,967
Acres of wheat sown in 1873	144,490
Acres of barley sown in 1873	17,427
Bushels of oats	250
Bushels of corn	9,240
Tons of hay	4,517
Pounds of hops	16,000
Pounds of cotton	120,000
Pounds of butter	27,716
Pounds of cheese	43,200
Pounds of wool	27,716
Hives of bees	156
Pounds of honey	2,500
Fig trees	980
Lemon trees	15
Orange trees	40
Olive trees	25
Prune trees	82
Mulberry trees	680
Almond trees	235
Walnut trees	189
Grape vines	183,076
Gallons of wine	7,670
Gallons of brandy	73
Distilleries	1
Sheep	266,599
Grist mills	2
Run of stone	5
Assessed value of property, 1873	$4,143,855
Improvements	437,505
Personal property	1,557,843
Total valuation	6,139,203
Total population	3,500
Registered voters	1,520

FRESNO COUNTY,

The next south of Merced, is one of the largest in the valley, extending the whole width of the San Joaquin basin from the summit of the Sierras on the east to the summit of the Coast Range on the west, a distance of one hundred and twenty miles, with an average width of sixty-five miles from north to south, and containing 5,200,000 acres of grazing, agricultural and mineral land. In the eastern portion of this county, in the mountain fastnesses of the Sierra Nevada range, is the source of the San Joaquin river, among the perennial springs fed by the everlasting snows of that elevated region. The course of this river for the first fifty miles is nearly due west until it reaches the centre of the great valley, when it abruptly turns its course to the north and commences its journey to the Pacific via Suisun, San Pablo and San Francisco Bays and the straits of the "Golden Gate." At the point it changes its course to the north it unites its waters with those of Fresno slough, the outlet of Tulare lake, and for several months in the year its lower channel is navigable to this point, a distance by the river of two hundred and twenty miles from Stockton. In the same mountain region where the San Joaquin has its source, its tributaries, the Chowchilla and Fresno rivers have their origin, and they pursue the same westward course until their waters mingle with those of the San Joaquin in the central part of the valley. Farther south in this county is King's river, another large stream fed from the same source which flows westward and empties its water into Tulare lake. Fresno county contains a large area of fine, arable land on which the cereals, corn, cotton, tobacco and many of the semi-tropical fruits are successfully cultivated. The numerous streams furnish unequalled facilities for irrigation, and several large canals have been constructed, and thousands of acres of land will soon be provided with a water supply which will render it immensely productive. Several artesian wells have been bored in this county, and streams of running water obtained. Like Merced county, the lack of facilities for cheap transportation has retarded the development of its agricultural resources, and until within the last three years stock raising and sheep husbandry have been the principal occupations of the inhabitants. The construction of the San Joaqnin Valley Railroad through this county has, however, given a new impetus to agricultural pursuits, and the unoccupied land is being rapidly taken up by settlers, and the permanent development of the county will soon follow. The canal leading from the San Joaquin river along the plains on its west side is already constructed for a number of miles, and several thousand acres of land were last year irrigated therefrom, and in consequence produced immense crops of wheat, barley and alfalfa. Parties who own large tracts of land below this canal are seeding it with alfalfa to furnish feed for cattle and sheep, it being peculiarly suitable for this purpose, and large areas of land heretofore considered comparatively worthless will thus become very valuable.

The New Idria, one of the richest quicksilver mines in the State, is located in the Coast Range, in the western portion of Fresno county, while in the Sierra Nevada range there are some valuable quartz mines, and there have been valuable placer diggings, which are now, however, mostly exhausted.

This is destined to become a populous and prosperous county, as its resources are extensive, and there is no reason why it should not be capable of supporting a large population. Owing to its remoteness from market it has been sparsely settled, and there are no towns of importance in the county. Millerton, the county seat, was the largest settlement until the railroad was constructed, but as the line of the road is now over twenty miles from the town it will probably lose some of its former prestige.

Fresno, a new town on the line of the railroad, is the centre of an important agricultural district, whose trade it will permanently control, and it promises to become one of the most important towns in the county.

Below we give statistics showing the products of the county for 1872:

FRESNO COUNTY.

Acres of land enclosed in 1872	55,734
Acres of land cultivated in 1872	18,506
Acres of wheat	8,972
Bushels of wheat	92,968
Acres of barley	9,451
Bushels of barley	142,680
Acres of wheat sown in 1873	17,683
Acres of barley sown in 1873	12,285
Acres of corn	226
Bushels of corn	6,140
Acres of hay	2,122
Tons of hay	3,434
Acres of cotton	147
Pounds of cotton	8,084
Pounds of butter	5,300
Pounds of cheese	500
Pounds of wool	1,122,192
Sheep	281,808
Cashmere and Angora goats	2,436
Grist mills, water power	1
Run of stone	2
Barrels of flour made	75
Saw mills	2
Feet of lumber sawed	250,000
Irrigating ditches	7
Number of acres irrigated	170
Miles of railroad	61
Assessed value of real estate in 1873	$3,015,733
Improvements	516,329
Personal property	2,116,534
Total valuation	6,548,593
Estimated population	7,300
Registered voters	950

TULARE COUNTY

Bounds Fresno on the south, and derives its name from the large lake that lies in its eastern portion. This county, like Fresno, extends the whole width of the San Joaquin basin, and is about sixty miles in width from north to south. It differs materially in its topographical features from the northern counties of the valley. The eastern portion is well watered, King's river running for some distance through its northern edge, while the

Kaweah, Tule river and numerous other creeks discharge large volumes of water into Tulare lake, which is the common receptacle for the drainage of the county.

Tulare lake is thirty-three miles long and twenty-two wide, and is surrounded by a broad area of tule land, which is in turn converted into a lake by a slight rise of the water above its natural level. Although this lake receives large volumes of water from the rivers mentioned, it only overflows to any considerable extent in seasons of floods, the hot and dessicated atmosphere of this region exhausting by evaporation from the large area of the lake the surplus water as fast as received by its tributaries.

All of the streams mentioned flow through steep and precepitous canons until they reach the plains, when they wander through the rich and fertile bottoms and furnish superior facilities for irrigation. These bottoms are covered with large oak trees, giving an abundant supply of fuel. In the Sierra range on the east are fine forests of pine and cedar. Several large groves of the *Washingtonia Gigantea* have also been discovered. Here are also some of the highest peaks of that remarkable chain of mountains, and probably the highest elevations of land on the American Continent.

Visalia, the county seat, and principal town of Tulare, occupies a handsome site on one of the branches of the Kaweah river. It is surrounded with gardens, orchards, vineyards and well cultivated fields, the soil here being adapted to the cultivation of almost every fruit or plant grown in California. The business of this town has been extensive, and it has many wealthy business firms and individuals. The San Joaquin Valley Railroad, running past the place at a distance of ten miles instead of through it, will detract somewhat from the present business importance of the place, but another road is proposed which shall make Visalia an initial point, and as there is every reason to believe that the proposed road will be built, Visalia will continue the most important business point in Tulare county.

This county has been principally devoted to stock raising, the range for stock in this locality being superior to that of almost any other portion of the State. Hogs have also been raised in immense numbers. These animals have been allowed to run at large, and in the tule swamps they have thrived and become fat, feeding on the tule roots and on fresh water mussels found in great quantities around the edge of the lake.

In the eastern part of the county mining has been carried on for many years, and some paying quartz lodes exist which have been extensively and profitably worked. Rich discoveries of silver ore have lately been made in the mountain regions, and this interest promises to be an extensive one at an early day.

The following statistics will show something of the business condition of

TULARE COUNTY.

Acres of land enclosed in 1872	64,371
Acres of land cultivated in 1872	32,882
Acres of wheat	11,559
Bushels of wheat	97,729
Acres of barley	17,848
Bushels of barley	129,240
Acres of wheat sown in 1873	15,412
Acres of barley sown in 1873	23,797
Acres of oats	1,272
Bushels of oats	31,811
Acres of rye	200
Bushels of rye	4,400
Acres of corn	650
Bushels of corn	13,500
Acres of hay	5,800
Tons of hay	3,400
Pounds of butter	5,000
Pounds of cheese	622,115
Hives of bees	550
Pounds of honey	6,340
Fig trees	1,985
Lemon trees	116
Orange trees	145
Olive trees	17
Prune trees	41
Mulberry trees	900
Almond trees	250
Walnut trees	409
Grape vines	276,480
Gallons of wine	1,200
Sheep	178,078
Cashmere and Angora goats	1,700
Grist mills, steam	1
Run of stone	3
Grist mills, water power	2
Run of stone	4
Barrels of flour made	12,863
Bushels of corn ground	1,100
Saw mills, steam	3
Saw mills, water power	1
Feet of lumber sawed	3,700,000
Quartz mills	2
Tons crushed	500
Irrigating ditches	19
Acres irrigated	7,400

Assessed value of property, 1873:

Real estate	$1,277,535
Improvements	670,022
Personal property	1,514,334
Total valuation	3,461,895
Total population	8,000
Registered voters	1,500

KERN COUNTY,

The extreme southern county of the San Joaquin basin, was formerly a portion of Tulare, which now bounds it on the north. It is surrounded on three sides by mountain ranges, the Sierras bounding it on the east, the Coast Range on the west, while the southern portion of the county is intersected by spurs from the Coast Range that diverge towards the Sierras. This county contains a large quantity of very rich farming land which would have been earlier brought under cultivation had there been facilities for the transportation of its products. Kern river rises in the Sierra Range, and flows westward through the county. It is a stream of considerable size and when it reaches the level of the plains its waters divide into many channels and flow through an extremely rich delta, which will eventually become some of the most valuable agricultural land in California. Fine facilities for irrigation are afforded, and the soil grows a variety of products in the greatest profusion. Corn, cotton, tobacco, flax, jute, ramie, all the cereals, vegetables and fruits of the temperate and semi-tropical climes can be successfully cultivated. In this county are situated Kern and Buena Vista Lakes, which successively receive the water of Kern river and then discharges the same into Tulare lake. Havilla, the present county seat, has been quite a populous mining town, and some quartz lodes in that vicinity are profitably worked at the present time. On the west side of the connty, in the vicinity of Buena Vista Lake, are extensive deposits of asphaltum, which flows from springs in that vicinity, and there are also oil springs from which a fair quality of oil has been produced by distillation. The distance from market has, however, prevented the development of this important resource of this county. Kern is, however, destined to become noted for its agricultural productions, and as the San Joaquin Valley Railroad is extended through its territory, its valuable resources will be speedily developed.

Bakersfield, a town situated in the centre of a valuable agricultural district, is a place of considerable importance, and will soon be within easy reach of this railroad, and thus become an important shipping point for this rich district of country. Below we give statistics compiled from official sources of the products of this county for 1872:

KERN COUNTY.

Acres of land enclosed in 1872	26,811
Acres of land cultivated in 1872	9,652
Acres of wheat	2,244
Bushels of wheat	38,433
Acres of barley	2,363
Busbels of barley	6,146
Acres of wheat sown in 1873	4,000
Acres of barley sown in 1873	4,500
Acres of oats	214
Bushels of oats	6,191

Acres of rye	130
Bushels of rye	2,485
Acres of corn	1,039
Bushels of corn	19,830
Acres of hay	2,952
Tons of hay	3,801
Acres of cotton	40
Pounds of cotton	20,000
Pounds of butter	4,000
Pounds of cheese	1,000
Pounds of wool	1,000,000
Number of grape vines	25,547
Number of gallons of brandy	440
Number of sheep	127,020
Number of grist mills—water power	3
Run of stone	6
Barrels of flour made	8,000
Bushels of corn ground	2,000
Number of saw mills	5
Feet of lumber sawed	4,000,000
Shingles	40,000
Number of quartz mills	15
Assessed value of property in 1873	$1,391,718
Improvements	$238,321
Personal property	$1,328,637
Total valuation	$2,958,676
Total population	5,000
Registered voters	866

AMADOR COUNTY,

Is situated east of San Joaquin, and is the northern of the tier of mountain counties on the eastern side of the San Joaquin basin. It extends from the edge of the valley proper to the summit of the Sierra range, and has a total area of about 600 square miles. In its western portion there is considerable good arable and grazing land, and along the several branches of Dry creek which flow through this county, there is some very valuable bottom land, capable of producing a great variety of crops. Jackson and Ione valleys are particularly fertile, and as beautiful and inviting localities as can be found in the State. The central portions of the county contain a large quantity of choice land for vineyards and horticultural purposes, while in the eastern part of Amador are very valuable timber lands.

Amador, however, excels in its mineral wealth, and its rich quartz and placer gold mines, veins of copper, quarries of marble and slate, and extensive deposits of coal make it one of the richest regions of country in California. The leading interest at the present time is quartz mining, some of the most valuable lodes on the Pacific Coast being located here. Some of these mines have been profitably worked for years and they are still valuable. The value of the bullion produced for 1872 from this county was about two million dollars, and a large number of miners are employed in this industry. There are still valuable placer mines which will be profitably worked on the completion of a large mining canal, that is now being constructed to lead the waters of the Mokelumne river into the mining districts. Several rich veins of copper ore have been discovered, and one has been profitably worked for several years, while others will undoubtedly be opened as soon as improved facilities for transportation are afforded by the construction of the Stockton and Ione Railroad.

One of the most valuable prospective sources of wealth possessed by this county, however, is an immense deposit of valuable lignite coal, which is believed to extend through a larger portion of the county from north to south. The deposit has been found in different localities, and in places it is very extensive. Where excavations have been made to test its existence and extent, the vein has been found ranging from four to ten feet in thickness, and in places it is fully one-half mile in width. From the developments already made it is evident that a supply of cheap fuel sufficient to supply the wants of the San Joaquin Valley for generations to come, will be easily obtained. This coal is well adapted for manufacturing purposes, and has been successfully used for several years at a steam flour mill at Ione City. This deposit will be made very valuable when facilities are afforded for its cheap transportation to market.

The principal towns of Amador are Jackson, Sutter Creek, Volcano and Ione City. Jackson, the county seat, was during the era of placer mining a place of considerable importance. It has a history similar to most of the mining towns of California, having passed through eras of prosperity and adversity, such as seldom have been the lot of towns anywhere else on the continent. During the period of its greatest prosperity it was nearly destroyed by a disastrous conflagration which consumed the whole business portion of the town, yet it was speedily rebuilt. The exhaustion of the placer mines and the consequent withdrawal from the locality of the large population that had been supported by that industry, seriously damaged the business prospects of the town, but the development of the rich quartz mines in the vicinity and the horticultural and agricultural resources of the surrounding country will, undoubtedly, eventually cause this place to recover something of its former prosperity. In the immediate vicinity of Jackson are some valuable quartz mines that are being profitably worked. In this neighborhood are also some very fine vineyards and orchards that will soon become very valuable to their owners.

Sutter Creek is a town of considerable inportance, principally supported by the rich and extensive quartz mines in the vicinity. Here are some of the finest and most complete quartz mills in California, and the annual yield of the precious metal is constantly increasing.

Volcano is one of the once prosperous mining towns in the centre of a valuable mineral district, and there is still considerable mining done in that vicinity.

Ione City is a beautiful little town, pleasantly located in the edge of Ione Valley, and is the business centre of the agricultural portion of the county. It has two flour mills, and is quite a thriving place. The coal mines are near this city, and when the contemplated railroad is completed this must become the most important town in the county.

We give below a table of statistics for

AMADOR COUNTY.

Acres of land enclosed in 1872	60,184
Acres of land cultivated in 1872	6,713
Acres of wheat	845
Bushels of wheat	21,125
Acresof barley	1,520
Bushels of barley	45,360
Acres of corn	475
Bushels of corn	18,028
Acres of hay	3,873
Tons of hay	4,238
Acres of hops	18
Pounds of hops	17,200
Pounds of wool	113,400
Grape vines	1,680,000
Gallons wine	35,700
Gallons brandy	1,250
Grist mills—steam power	1
Run of stone	3
Grist mills—water power	1
Run of stone	2
Barrels of flour made	4,280
Bushels of grain ground	19,028
Saw mills	3
Feet of lumber sawed	3,000,000
Number of Quartz mills	15
Tons of ore crushed	81,000

There are 9 mining ditches aggregating 148 miles in length; 12,000 inches of water used each day.

Tons of coal mined	5,360
Assessed value of property in 1873—	
Real estate	$1,239,940
Improvements	711,080
Personal property	739,220
Total valuation	2,690,240
Estimated population	10,500
Registered voters	3,176

CALAVERAS COUNTY

Derives its name from the Calaveras river, which runs through its central portion. It is bounded by Amador on the north, —and separated from that county by the Mokelumne river—and by Tuolumne county on the south, its boundary on that side being the Stanislaus river. It has an average width of about twenty miles, and extends from the edge of the San Joaquin Valley on the west to the summit of the

Sierra Nevadas on the east, a distance of about fifty miles. In everything that relates to its topography, soil, climate and natural productions, it is very similar in character to Amador county. Bear Mountain, a rocky wooded range, about two thousand feet high, runs across the county from north to south, dividing it into two sections, the western or lower section being composed of foothills and low, rolling prairie lands, while the eastern or upper section is more rugged and broken, although containing some valleys and table lands that are susceptible of cultivation, and considerable hilly land that is peculiarly well adapted to horticultural purposes, when irrigation is practicable.

West of the Bear Mountain range are extensive copper veins, some valuable quartz lodes, mines of iron and manganese, and quarries of slate of an excellent quality. The hills of this portion of the county are sparsely covered with oak trees, but it has no timber suitable for other purposes than for fuel. This region is also naturally arid. That portion of the county east of the Bear Mountain range has contained some of the richest placer diggings ever discovered in the State, and this kind of mining is still extensively carried on in several localities, hydraulic washing having taken the place of the original and primitive ways of prosecuting this work. There are also some very valuable quartz mines, and considerable attention is now being paid to the development of this important interest. There are inexhaustible quarries of marble and limestone, and also valuable deposits of brown hematite iron ore in close proximity thereto. In the more elevated portions of the county are extensive pine, cedar and redwood forests, capable of furnishing a lumber supply to a large population for generations to come. In this timber belt are situated the celebrated groves of the *Washingtonia Gigantea*, commonly known as the Big Trees of California, already referred to in a preceding article.

The more important towns of this county are San Andreas, Mokelumne Hill, Angels, Murphys and Vallecito.

San Andreas, the county seat, is located near the centre of the county, in what was formerly a rich mineral district. There is still some mining done in this vicinity both in placers and in quartz, but the business of the town is much less than formerly. Mokelumne Hill is situated in the northern part of the county, and was at one time one of the most prosperous in the southern mines of California. In this vicinity were some fabulously rich placer diggings, and there are still hydraulic claims that are being worked with profit. There are also several valuable quartz mines in this district. This town is very romantically located in a rugged and broken region, adjacent to the Mokelumne river, and notwithstanding the decline in business resulting from the exhaustion of the placer mines, it is still one of the most beautiful towns in the mountain counties of California.

Angels, located on Angels creek, has always been quite an important business point. Here are several quartz lodes, from which have been taken large amounts of bullion. These lodes are still being worked and others are being discovered and opened, and this industry, with the business of the surrounding country, causes Angels to be more prosperous than others of the mining towns.

Murphys, situated in the southern part of the county, was one of the early mining camps of this region, and in its vicinity were formerly extensive and rich placer diggings, which have, however, been mostly exhausted. This town is located on a table land that extends for several miles at an elevation of some two thousand feet above the Stanislaus river. On this table land are also situated the former prosperous mining towns of Vallecito and Douglass Camp. This district was formerly very populous, but like all the placer mining regions, has declined, and these towns retain few signs of their former prosperity. In the vicinity of Vallecito hydraulic mining is still being extensively carried on, and there is yet considerable ground that can be profitably worked by this process. In this vicinity considerable attention is being paid to agricultural and horticultural pursuits, and there are a number of fine vineyards where a superior quality of wine is produced. There are several good farms, and a large extent of grazing land. Murphys being situated on the direct route to the Big Trees, at the point where the ascent of the higher Sierras commences, is an important way station for the tourists to that great place of resort. At this place Messrs. Sperry & Perry, owners of the Big Tree Grove, have a comfortable hotel, which, during the Summer season, is well patronized by travelers. Near the town of Murphys are some rich iron mines, that eventually will be very valuable.

Copperopolis, located on the copper belt which passes through the western portion of the county, was at one time one of the most important towns in the county, being supported by the copper mines that during several years were extensively and profitably worked at this place. These mines are not by any means exhausted, but the great cost of transporting the ores to the seaboard makes it unprofitable to work them at present.

Milton, the present terminus of the Stockton and Copperopolis Railroad, is in this county, and as at this point passengers take stages for Murphys and the Big Trees, and all the freights for the eastern and southern portion of the county are reshipped, it promises to be a place of considerable business. This county is remarkably rich in resources, but many of them remain undeveloped for the reason that no effort has been made in that direction. As this region of country becomes more populous, and when capital for the inauguration of new industries can more readily be obtained, this will become one of the most prosperous regions in California.

The following table of statistics will show the present condition of

CALAVERAS COUNTY.

Acres of land enclosed in 1872	48,035
Acres of land cultivated in 1872	11,200
Acres of wheat	545
Bushels of wheat	6,499
Acres of barley	1,696
Bushels of barley	30,838
Acres of wheat sown in 1873	800
Acres of barley sown in 1873	2,200
Acres of corn	249
Bushels of corn	6,370
Acres of hay	6,737
Tons of hay	6,398
Pounds of butter	28,650
Pounds of cheese	500
Pounds of wool	211,417
Grape vines	558,054
Gallons of wine	80,191
Gallons of brandy	1,717
Distilleries	18
Gallons distilled	1,080
Sheep	35,316
Cashmere and Angora goats	3,134
Saw mills, steam	4
Saw mills, water power	2
Feet of lumber sawed	2,962,000
Quartz mills	34
Tons of ore crushed	28,960

There are 22 water ditches, aggregating 490 miles in length, and 3,670 inches of water used each day.

Assessed value of real estate in 1873	$ 370,813
Improvements	471,354
Personal property	715,639
Total valuation	1,558,806
Estimated total population	9,500
Registered voters	2,728

TUOLUMNE COUNTY

Is bounded on the north by Calaveras, and on the south by Mariposa, and extends from Stanislaus county on the west to the summit of the Sierras on the east, and has a total area of about 200,000 square miles. The Tuolumne river, rising in the Sierras in the region of perpetual snow, flows through the central portion of this county. The Stanislaus, river which separates this county from Calaveras, has two branches which rise in the higher Sierras and flow their whole length through this county, and these rivers, with the Tuolumne and its branches, all flow through deep and precipitous canons, abounding in grand and picturesque scenery. This county, like Calaveras, has been noted for its rich placer mines, and it still contains great undeveloped mineral resources. One of the most striking and remarkable geological formations in the State is Table Mountain, which extends for nearly thirty miles, and is composed of masses of basaltic lava, with nearly perpendicular sides and flat on the top, the summit being at an elevation of about 2,000 feet above the Stanislaus river, near which it runs for a considerable distance. In this mountain there are rich deposits of gold bearing gravel, some of which are still being profitably worked. Some of the gulches and creeks of this county have been immensely rich, and could the total gold product of Tuolumne be ascertained it would probably excel that of any other county in the State. At present, however, there is but comparatively little placer mining done. Considerable attention is paid to quartz mining, and many rich lodes have been discovered, and when this interest is more fully developed there is good reason to believe that Tuolumne will again take a prominent place as a producer of the precious metals. Although the leading pursuit in this county has been mining, of late years more attention has been paid to agricultural pursuits, and there are many small, well tilled farms and fine orchards and vineyards, where it was once supposed the land was comparatively worthless for agricultural or horticultural purposes. The soil and climate is found to be peculiarly favorable to the production of fruit, and some of the choicest found in the leading markets of this State are raised in Tuolumne. Large quantities of wine are manufactured, and there are still thousands of acres of land that could be profitably devoted to the culture of the grape, provided cheaper facilities were afforded by which the products of the vineyards could be transported to a market.

In the eastern portion of this county are extensive forests of pine and cedar timber of a superior quality, that eventually must become very valuable. The lumber business of Tuolumne is now one of its most important, industries, It at one time contained several towns of importance but most of them give little evidence of their former prosperity. Where were once thriving and populous mining camps, in some instances hardly a building is left to mark the spot, and even the soil has been washed away to secure the mineral wealth which it contained.

Sonora, the county seat, has, however, been more fortunate, and it still remains a beautiful and prosperous mountain town, and a place of considerable business. Columbia, at one time its rival, and equal in population and wealth, has rapidly gone to decay, and fine brick buildings have been torn down, in order that the ground upon which they stood might be mined and this practice has continued until a large portion of the town, with its public streets, building sites and fine gardens and ornamental grounds has been washed away, leaving in their places the unsightly debris, and uneven surface of the worked out mining claim.

Other, towns once noted throughout the mining districts of the State, have shared a similar fate, and none in the county have wholly escaped. Chinese Camp and Garote, situated on the most direct route to the Yosemite valley, are benefitted to some extent by that travel, while many tourists pass through Sonora and Columbia in going to and from the Big Tree Grove of Calaveras to the Yosemite.

Tuolumne, however, is passing through a transition state, and there is every reason to believe that it has already entered upon an era of permanent development that will again place it among the favored counties of the State. The latent wealth of this region of country is apparent to the most casual observer, and with its unequaled climate and many advantages for a residence, it must again attain something of its former prosperity. It has several extensive mining canals which have been constructed at immense cost to bring water from the Stanislaus and Tuolumne rivers upon the higher table lands and to the mining districts, and the larger portion of the county is well watered from this source. These canals afford excellent facilities for irrigation, and the water that has heretofore been used to tear up and wash away the soil and thus mar the whole appearance of the country, will hereafter be used to a greater extent in beautifying the waste and arid places by furnishing the necessary moisture to enable these hillsides to be covered with orchards and vineyards, where the most delicious fruits of the temperate and semi-tropical climes will be produced in the greatest profusion.

The following statistics show the present products of

TUOLUMNE COUNTY.

Acres of wheat	5,500
Bushels of wheat	82,500
Acres of barley	1,000
Bushels of barley	9,000
Acres of land cultivated in 1873	40,000
Acres of wheat sown in 1873	4,500
Acres of barley sown in 1873	900
Acres potatoes	400
Tons of potatoes	4,500
Acres of hay	20,000
Tons of hay	25,000
Acres of tobacco	25
Pounds of tobacco	4,000
Pounds of butter	80,000
Pounds of wool	9,000
Grape vines	1,700,000
Gallons of wine	90,000
Gallons of brandy	2,263
Distilleries	10
Sheep	15,113
Cashmere and Angora goats	2,859
Grist mills—water power	4
Run of stone	8
Barrels of flour made	13.000
Bushels of corn ground	21,000
Saw mills—steam	5
Saw mills—water power	2
Feet of lumber sawed	5,000,000

Quartz mills	23
Tons of ore crushed	12,000
Mining ditches	4
Miles in length	100
Amount of water used per day—inches	2,400
Irrigating ditches	100
Acres irrigated	5,500
Assessed value of property in 1873:	
Real estate	166,635
Improvements	174,185
Personal property	566,842
Total valuation	907,665
Total population	7,500
Registered voters	2,800

MARIPOSA COUNTY

Is bounded on the north by Tuolumne, south by Fresno and west by Merced, and extends from the edge of the San Joaquin valley to the summit of the Sierra range. Its length is about sixty-five miles from east to west, and its width from north to south about thirty miles.

Merced, its principal river, has its source in the mountain fastnesses above the Yosemite Valley, in the regions of perpetual snow, and then flows over towering precipices and through deep and precipitous canons until it reaches the western boundary of the county. Nearly the whole of Mariposa is extremely rugged and mountainous, and there is comparatively little land suitable for agricultural purposes. Quartz mining is the principal business, and there are numerous lodes that have been profitably worked for many years.

The "Las Mariposas" grant, a large tract of land ceded by the Mexican Government before California was acquired by the United States, and which has since been awarded by the latter Government to John C. Fremont, lies within the limits of this county. This grant covers an area of forty-eight thousand acres of land, including some of the richest mineral lands of the county, and within its limits are the towns of Bear Valley, Princeton and Mariposa. The prosperity of these towns depends almost entirely upon the management of this estate, and as the owners of this property have for the last three years done little in the way of developing its resources, the business of the whole county has declined.

Coulterville, situated on the north side of the Merced river, has been an important mining town, and still has some valuable quartz mines.

Hornitos, formerly a place of considerable importance, is situated in the western portion of the county, and is now supported in part by the quartz mining carried on in its vicinity.

Mariposa has numerous forests of pine, spruce and cedar, and there are also several groves of the *Washingtonia Gigantea*, one of which, situated near the south fork of the Merced river, and about five miles from the trail leading from Mariposa to Yosemite Valley, is annually visited by thousands of tourists.

The towns of Hornitos, Bear Valley and Mariposa are upon one of the stage routes leading from Merced to Yosemite Valley from the south, and Coulterville is upon the route leading into the valley from the north side of the Merced river. All of these places are somewhat benefited by this travel.

Mariposa, like others of the mining counties, has made but little progress for the last few years, yet it possesses many resources that will eventually be developed, and its resources are sufficient to support a large population.

The foilowing statistics are from official sources, and show something of the present condition of

MARIPOSA COUNTY.

Acres of land enclosed in 1872	2,350
Acres of land cultivated in 1872	6,500
Acres of wheat	730
Bushels of wheat	5,000
Acres of barley	2,000
Bushels of barley	6,000
Acres of hay	5,000
Tons of hay	4,000
Pounds of butter	7,000
Pounds of cheese	500
Pounds of wool	98,000
Grape vines	250,000
Gallons of wine	15,000
Gallons of brandy	1,000
Distilliries	1
Gallons distilled	500
Sheep	44,663
Cashmere and Angora goats	49
Saw mills, steam power	4
Feet of lumber	1,500,000
Quartz mills	33
Tons of ore crushed	7,000
Mining ditches	5
Miles in length	25
Acres of wheat sown in 1873	500
Acres of barley sown in 1873	1,600
Assessed value of property in 1873	$ 445,780
Improvements	375,823
Personal property	550,367
Estimated population in 1873	4,000
Registered voters	1,421

THE FUTURE OF THE MINING COUNTIES.

While the mountain counties of the San Joaquin basin were for the first ten years of their settlement both populous and prosperous, during the last ten years they have decreased in population and in wealth. It by no means follows, however, that this vast region of country is not capable of supporting a large population. The first settlement was made by those seeking for gold, and for several years the extraordinary richness of the placer mines enabled them to accumulate wealth very rapidly. Having come to the State solely to mine for gold, and believing that this was the only resource of the State, many were ready to leave for their homes or for other diggings as soon as it became apparent to them that the richest placers were being exhausted. Not one in a hundred of the early residents of these counties had any intention of making this State their permanent residence, but all expec ed to leave as soon as they had accumulated an amount of gold sufficient to satisfy them. Such persons were not willing to engage in any undertaking for the permanent development of the country, and it is not at all strange that the real wealth of this region was consequently overlooked. It has also been a difficult matter for those who have remained to forget the flush days of of the mining era, abandon the extravagant habits acquired at that time, and turn their attention to pursuits that can only be made profitable by habits of industry and frugality, but such as have been able to adapt themselves to the new order of circumstances, and have gone to work with a will to build them permanent homes have generally been successful in their efforts.

There are many thousands of acres of land in the mining counties which, if as thoroughly tilled as are the farms in the hilly portions of New England, would be equally productive. For the production of fruits these lands are unexcelled, and apples, peaches, pears and plums can be raised in the greatest abundance, as well as the choicest fruits, natives of warmer regions. The fruit supply for large portions of the State of Nevada and the great interior basin, will be produced on the eastern slope of the Sierra Nevada Range, and the choicer products of these orchards will, on account of their superiority, find a ready market in the larger cities east of the Rocky Mountains. This region also contains as fine land for the production of the grape as can be found in France, and the wine product of these mountain vineyards will eventually be sought for by connossieurs on account of its superiority and purity.

The mountain regions afford abundant feed for sheep and Angora goats, and numerous bands of these animals are each Spring driven from the lower valleys to the higher altitude of the Sierras for their Summer pasturage. Along the headwaters of the various streams, at a high altitude, are many spots of interval or meadow land, some of which are of considerable extent, and here stock of all kinds finds abundant feed during a season when all vegetation upon the lower plains is dried up by the Summer heat. The great timber belt which passes through these counties will eventually be drawn upon to supply the lumber for the valley regions, and the various mines of iron, quarries of limestone, granite and slate will be developed.

The climate of these mountain counties cannot be excelled, and it is especially favorable to persons subject to pulmonary complaints. The atmosphere is, during the summer season, clear and pure, and the nights are always cool and pleasant. In view of the immense latent resources of these counties, and the many advantages they possess, they must again become populated by those who will go there to make permanent homes. At present the land can be obtained for the Government prices, and in many instances improved property can be purchased at reasonable rates.

CONCLUSION.

From the facts and statistics already given, it will be apparent to the reader that the San Joaquin basin, of which Stockton is the natural business centre, is destined to eventually become one of the most prosperous and favored regions on the continent. Its vast area, favorable climate, fertile soil, and varied mineral and agricultural resources, must necessarily attract the attention of the immigrant and capitalist, and they will unite to develop its latent wealth. Thus far the great work has been barely commenced. Immense tracts of overflowed land that might be reclaimed and made to produce extraordinary crops of wheat, or which could be devoted to the cultivation of other valuable products, are as yet unimproved. Thousands of acres of virgin soil remain uncultivated, altoough capable of returning rich returns for the labor expended upon it. There is room for a much larger population, and no possibility that the labor market can be overstocked for years to come. Manufactories are required to utilize the various products that are now allowed to go to waste, canals are to be dug for irrigating the arid plains, railroads constructed to furnish cheaper transportation, mines and quarries are to be opened, that their products may be rendered available, and numerous new ndustries inaugurated in order that the resources of this vast region of country may be fully developed. Nearly every necessary or luxury required by man can be here produced, and the inhabitants of this valley will have all the advantages of a ready access to the principal markets of the world, either for the disposal of their surplus products or for the purchase of necessary supplies.

The total population of the San Joaquin Valley basin at this time does not exceed 100,000, and the statistics published herewith show that the productions *per capita* are very remarkable. Taking the wheat product as one example, and it is proven that in 1872 there were one hundred bushels of wheat raised for every inhabitant of the whole basin, including the mountain counties as well as the agricultural counties. If the estimate was made for the valley counties alone the amount *per capita* would be very much greater. When to this is added the products of wool, barley, wine, fruits, bullion, etc., it will be seen that the value *per capita* of the annual products of this region of country is probably greater than that of any other portion of the known world. While this is accomplished by our present population, there is ample room for three times the number, and an opportunity for all to do equally well.

This valley offers superior inducements to those persons who are desirous of engaging in agricultural pursuits, and it is doubtful whether there is another locality on the continent where thorough and systematic farming is more profitable. Notwithstanding the occasional drouths which have been disastrous to the careless, unsystematic farmer, repeated experiments have demonstrated the fact that with thorough tillage and summer-fallowing, crops can be raised in the driest seasons. The time is coming, however, when the farmer of this valley will have little cause to fear seasons of drouth. A complete system of irrigation will be adopted, and canals constructed to lead the water of the numerous streams over the land to furnish the requisite moisture to secure the growth of crops in the driest seasons. This object will be effected in some portions of the valley by artesian wells. A number have been bored in Fresno county, and flowing water obtained at depths ranging from 125 to 200 feet, and the cost of the well, including piping, does not exceed two dollars per foot. Some of these wells furnish sufficient water to irrigate one hundred and sixty acres of land, and by this means it is made capable of growing a great variety of products, and two crops can often be raised the same year. When the land is sown to alfalfa three, and sometimes as many as five crops are cut—this depending upon the strength of the soil.

In no part of the United States can a settler secure for himself a pleasant home in so short a time. Fruit trees grown from the cutting will produce fruit in less than one half the time required in the Eastern States. The growth of ornamental trees and shrubbery is equally rapid, and where there are facilities for irrigation, it is possible for the settler to surround his home with a growth of choice trees and shrubbery in a very few years.

THE PRICES OF LAND

Are lower in this valley than in any other portion of the State within the same distance of a market and possessed of similar facilities for transportation. First-class bottom land can be purchased in San Joaquin county for fifty dollars per acre, while the second and third quality of lands varies in prices according to locality. The superior bottom lands in Stanislaus county are held at from $25 to $40 per acre, according to the distance from railroad. The second quality of land suitable for the growing of wheat and barley ranges from $10 to $15 per acre, while the third quality, devoted wholly to grazing purposes, can be bought for from $4 to $7 per acre.

The price of land in Merced county will not vary much from that of Stanislaus.

In Fresno, Tulare and Kern counties, land can be purchased from present holders at prices from twenty to thirty-five per cent. less than would be asked for the same quality of land in Stanislaus and Merced. In these southern counties there is still considerable public land that can be obtained by the actual settler at the Government rates, or $2 50 per acre. In these counties there are many large tracts owned by individuals who are anxious to sell a portion thereof to industrious men who will improve it, and thus aid in developing the country. This class of settlers can always procure land from these parties on easy terms, and also secure assistance to start them in farming. The railroad lands in these counties, of which large quantities are still unsold, can be purchased on easy terms. In the counties of San Joaquin, Stanislaus, Merced and Fresno, there still remains 317,480 acres of Government land, as shown by the books of Melville Cottle, Esq., the Register of the Land Office in this district. This is principally rolling and hilly, but some of it is susceptible of cultivation. In the mountain counties much of the land is yet unsurveyed, and the unoccupied is open to settlers.

Everywhere in this whole region the immigrant who desires to settle and build a home for himself and family will be cordially received, and if industrious and frugal he will soon be able to secure for himself a competence.

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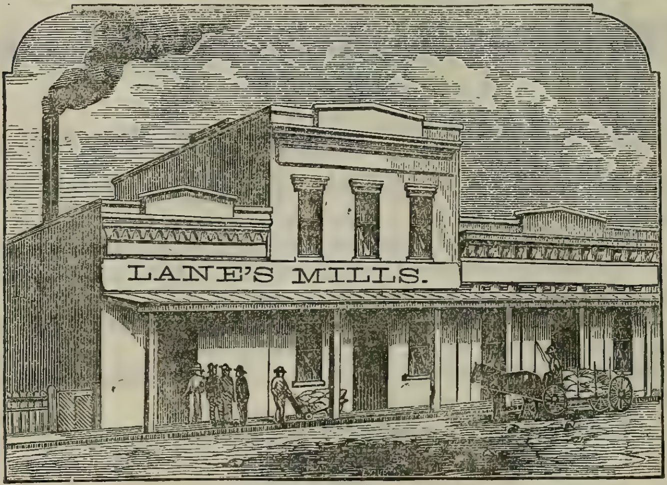
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